Zambia farmer profile: Overview, segmentation and targeting

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1

Outline

- Finscope Survey Background

- Demographics

- Financial Inclusion Levels

- Mapping Zambian Farmers

- Mobile Money Readiness Index

- Financial Services

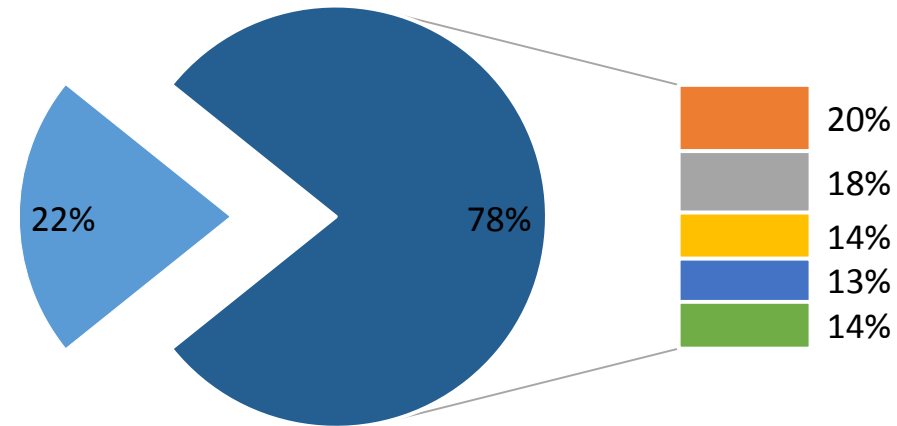- Segmentation

- Targeting

- Programmatic implications

Demographics

2015 FinScope Survey Background

- A research tool developed by FinMark Trust to address the need for credible financial sector information

- Provides an understanding of how adults (16 and above) manage their financial lives
  - Tracks overall trends in financial inclusion

- The survey was conducted February – March 2015
  - 8,570 adults interviewed
  - 51% female, 49% male
  - 45% urban, 55% rural

- 22% of adults rely on farming as their main income source
  - The following results correspond to (1,641) adults that reported farming as their main income source
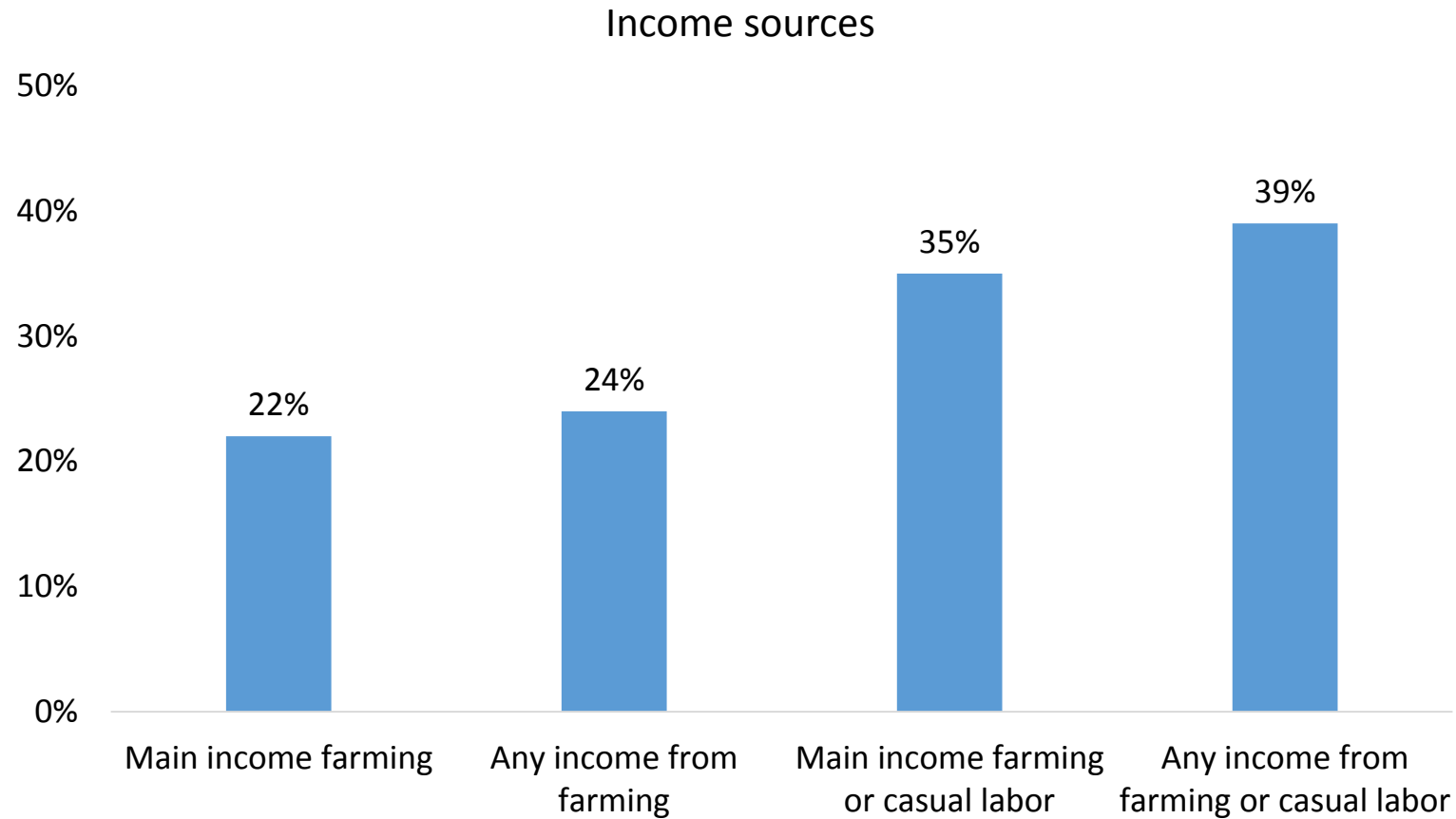
Over 1 in 5 Zambian adults listed farming as their main income source

Main income source (% of respondents)

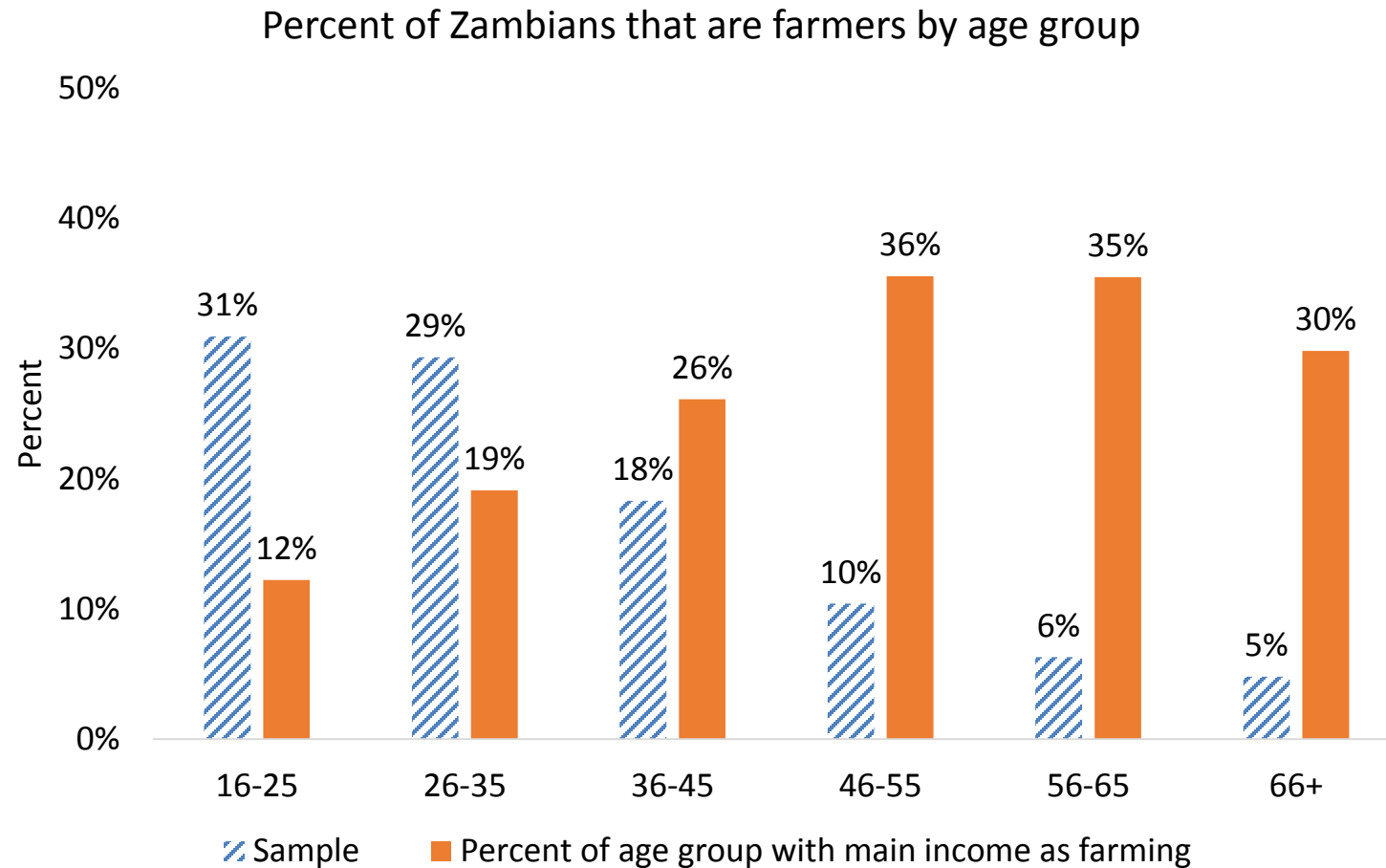- 22% — Farming
- 78%
  - 20% — HH member or friend
  - 18% — Salary/Wages
  - 14% — Casual
  - 13% — Self-employed own business
  - 14% — Other

Legend:
- Farming
- HH member or friend
- Salary/Wages
- Casual
- Self-employed own business
- Other

Nearly 4 out of 10 Zambian adults report receiving some money from either farming or casual labor

Income sources

Main income farming: 22%
Any income from farming: 24%
Main income farming or casual labor: 35%
Any income from farming or casual labor: 39%

Older Zambians are more likely to report farming as their main income source

Percent of Zambians that are farmers by age group

	16-25	26-35	36-45	46-55	56-65	66+
Sample	31%	29%	18%	10%	6%	5%
Percent of age group with main income as farming	12%	19%	26%	36%	35%	30%

Percent

Sample   Percent of age group with main income as farming

Zambians who are less educated are more likely to report farming as their main income

Percent of Zambians who are farmers by education level
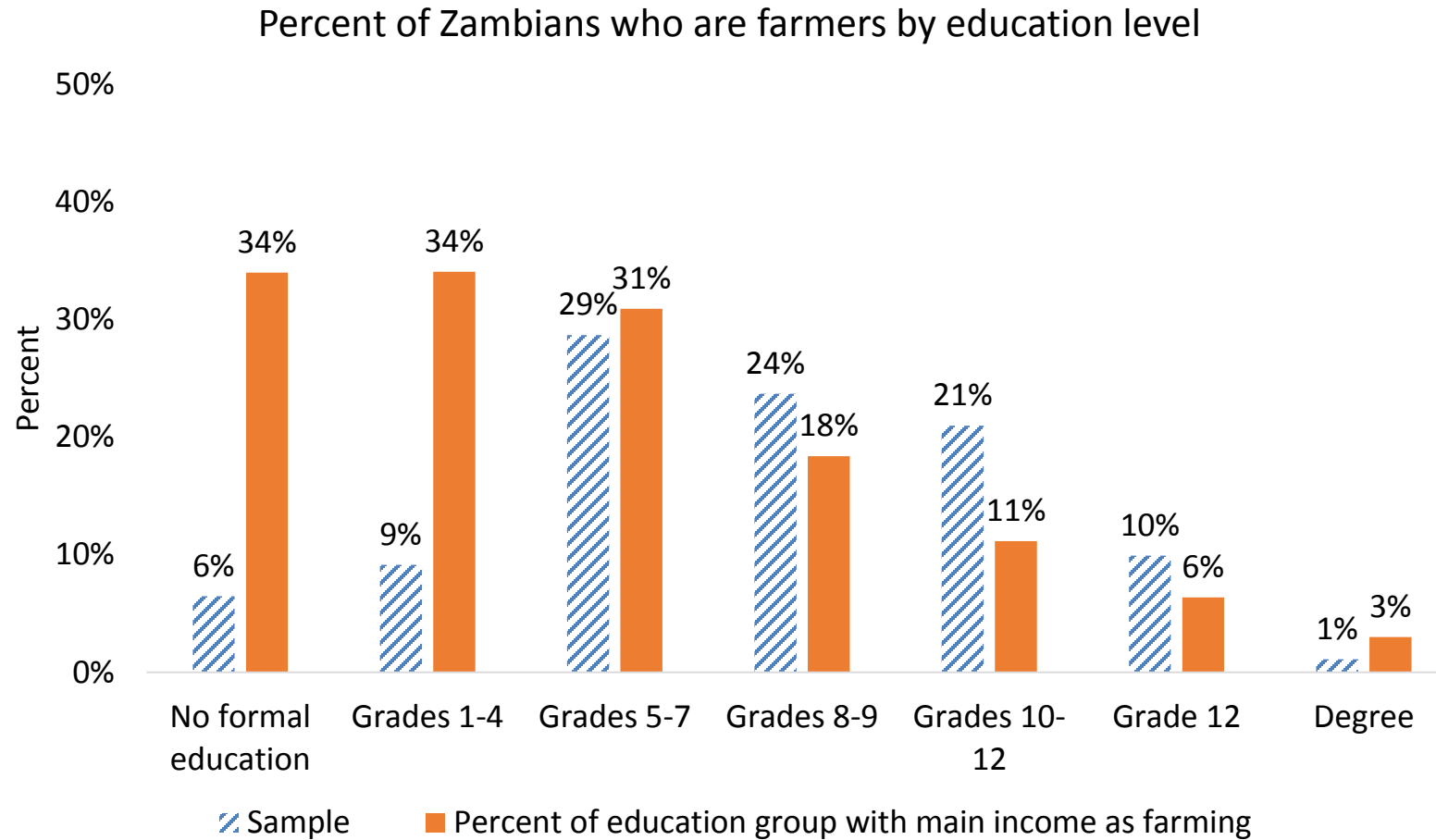
Zambian men are more likely to report farming as their main income source

Percent of respondents who report main income as farming
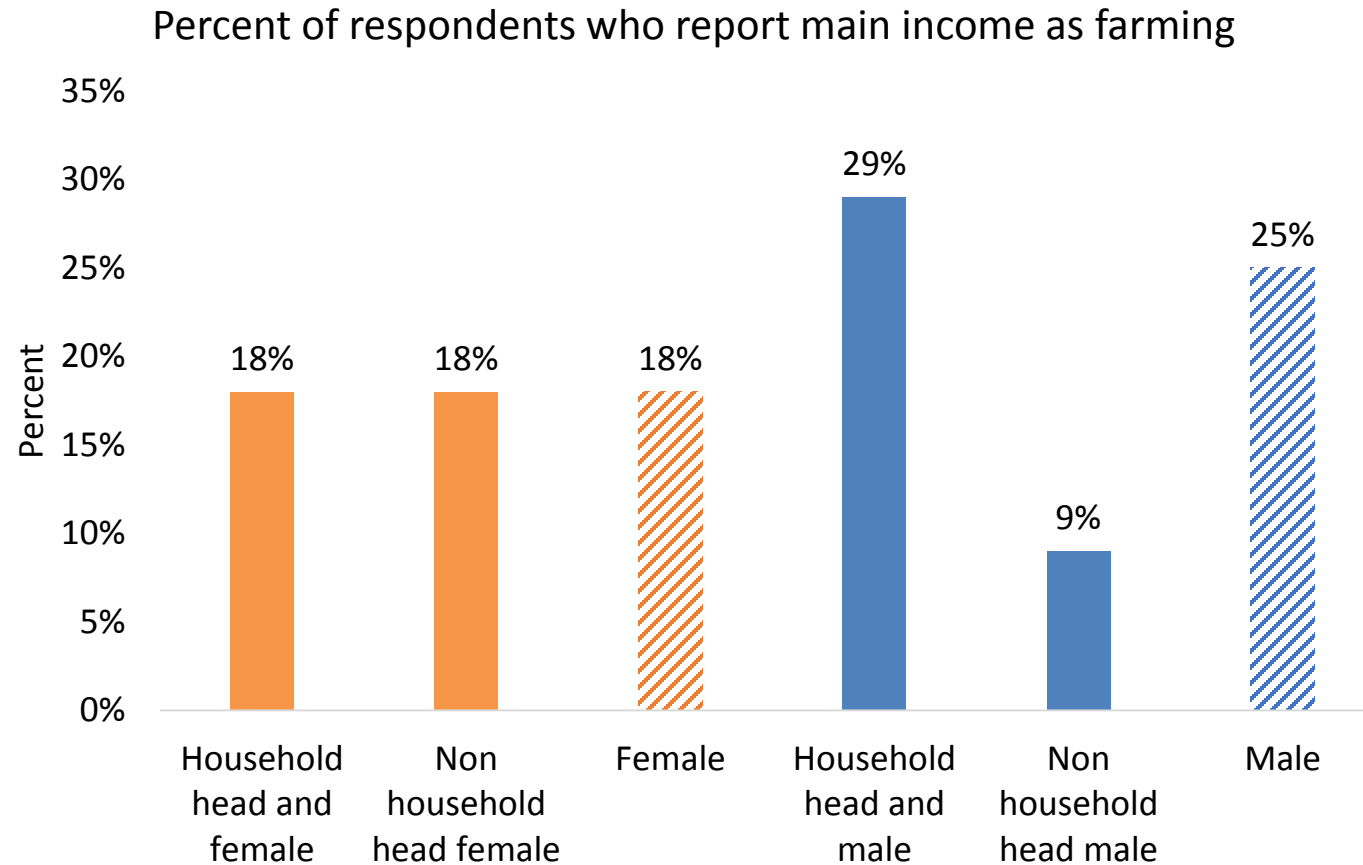
Zambian women who are not household heads are more likely than their male counterparts to report farming as their main income source

Farmers are poorer than the population distribution

Distribution of PPI Scores

PPI score 50-54:
80% chance of being
below $2.50 per day
(2005 PP)

PPI Scores

Farmers   Sample

Source: 2015 Finscope
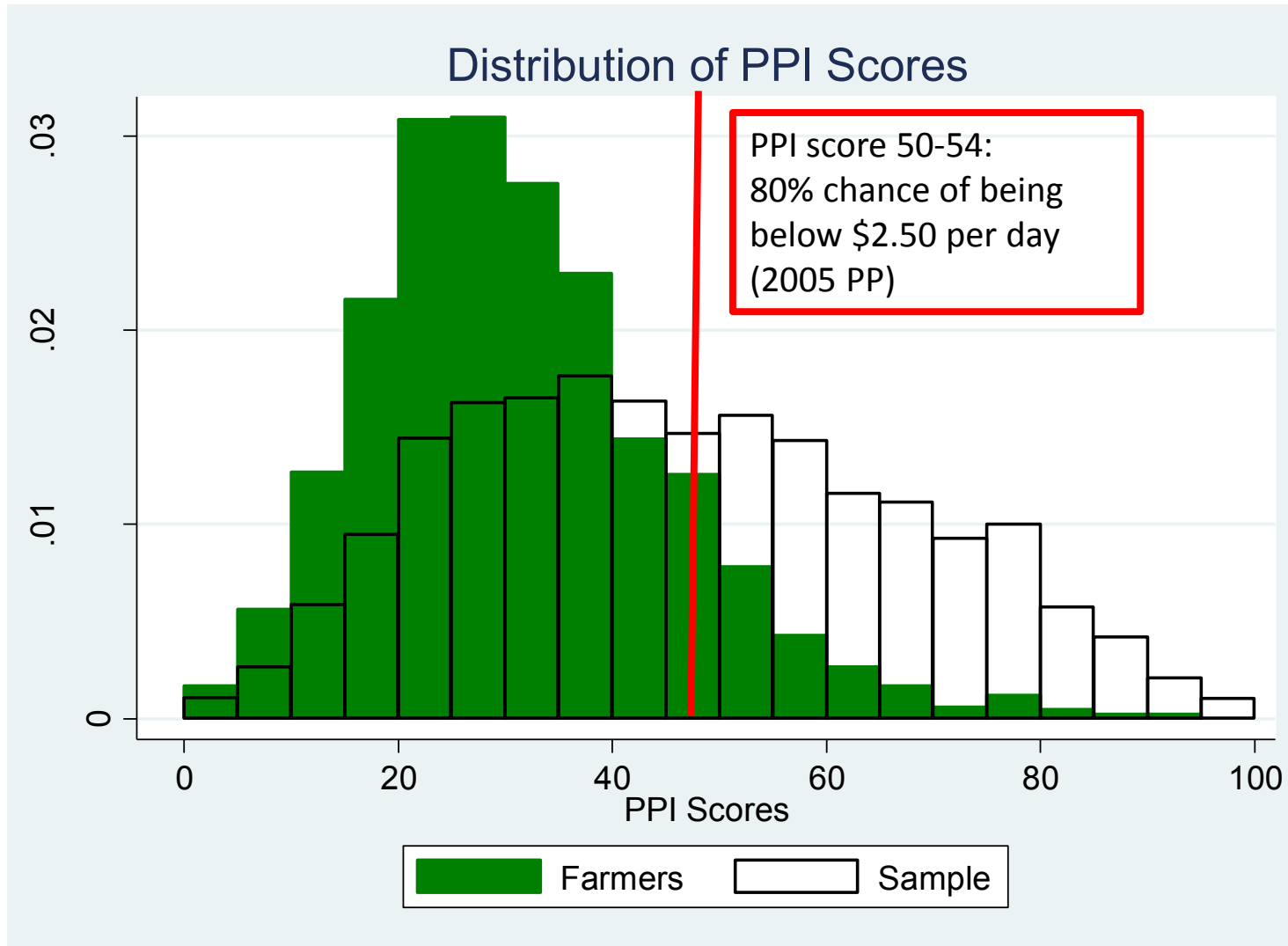
Farmers are most likely to live under $2.50 per day. The poorest 40% are also very likely to live under $1.20 per day according to the Progress Out of Poverty measure

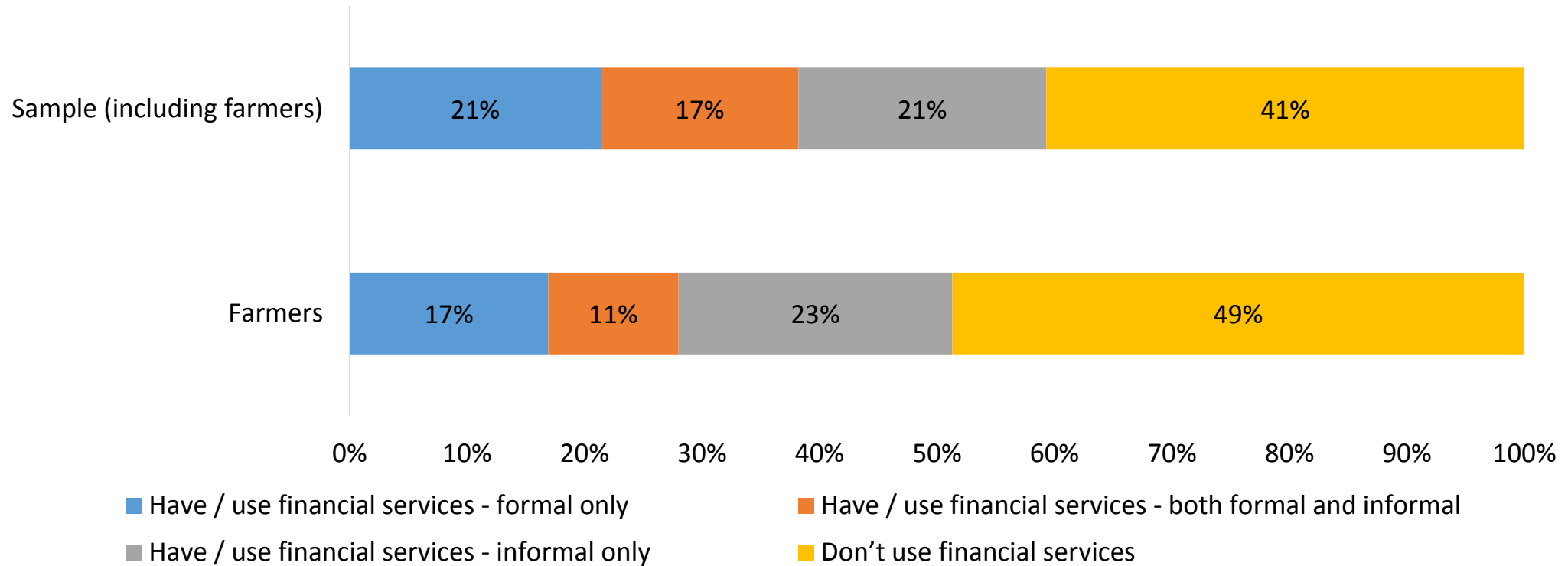| Quintile	Average PPI Score Sample	Likelihood of being below $1.25 per day	Likelihood of being below $2.50 per day	Sample Size	Percent of farmers
Bottom 20% PPI	21	97%	100%	1,571	20%
21-40% PPI	37	80%	98%	3,385	42%
41-60% PPI	58	23%	71%	2,397	27%
61-80% PPI	80	1%	17%	1,043	10%
Top 20% PPI	94	0%	5%	83	1%

The PPI is statistically-sound, yet simple to use: the answers to 10 questions about a household's characteristics and asset ownership are scored to compute the likelihood that the household is living below the poverty line

Financial inclusion levels

Farmers are more likely to be financially excluded

Financial inclusion strands

Source: FSD Zambia Finscope report

Sample (including farmers):
- Have / use financial services - formal only: 21%
- Have / use financial services - both formal and informal: 17%
- Have / use financial services - informal only: 21%
- Don't use financial services: 41%

Farmers:
- Have / use financial services - formal only: 17%
- Have / use financial services - both formal and informal: 11%
- Have / use financial services - informal only: 23%
- Don't use financial services: 49%

Legend:
- Have / use financial services - formal only
- Have / use financial services - both formal and informal
- Have / use financial services - informal only
- Don't use financial services

Zambia financial diaries: farmers had 4.3 income sources and got 63% of their income from farming
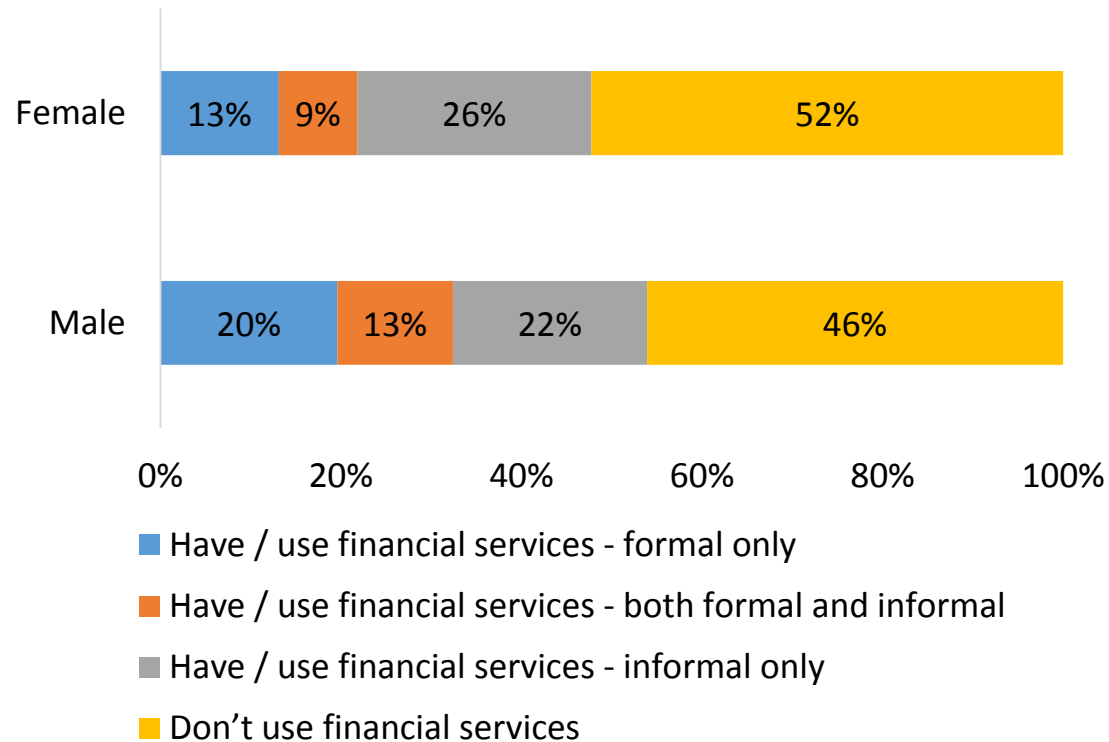
Table 7: Diversity of Earnings by Livelihood

	Average Number of Income Sources	Average Weekly Income (ZMW)	Share of Income from Primary Source	Share of Weeks with No Earned Income
Dependent	0.7	14.0	88%	95%
Farmer	4.3	141.1	63%	54%
Informal	3.3	349.5	77%	39%
Salaried	2.2	430.9	85%	70%
Total	**2.9**	**249.0**	**75%**	**57%**

This is similar to diaries results in other countries – off-farm income is always a very important income source for smallholder farmers. Doesn't include consumption of home production.
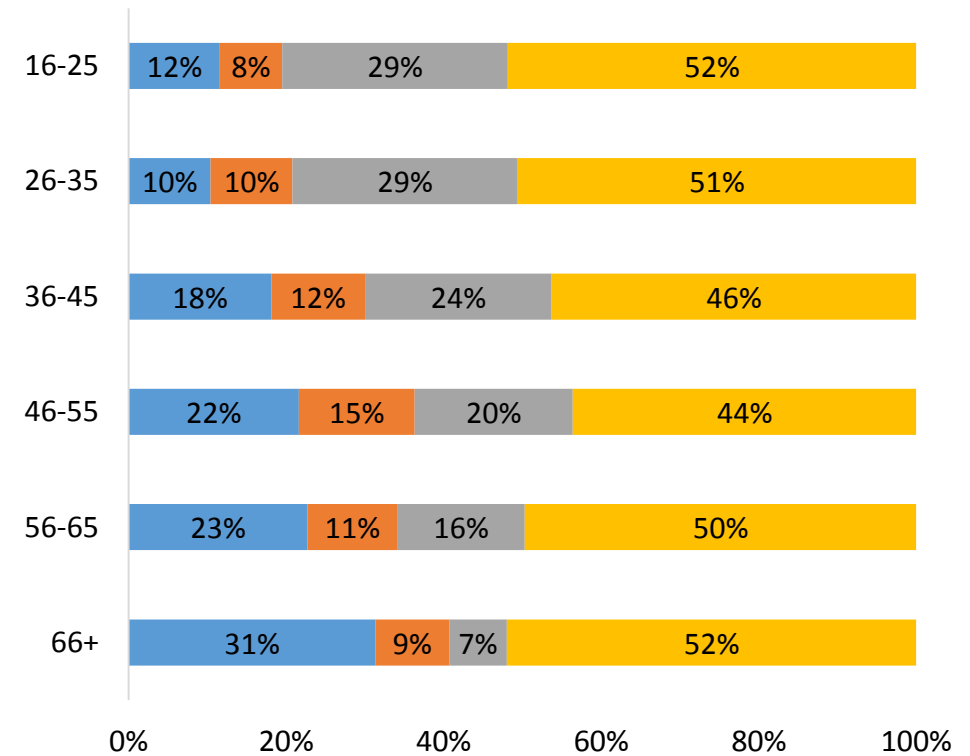
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Female and older farmers are more likely to be financially excluded while younger farmers rely more on informal instruments

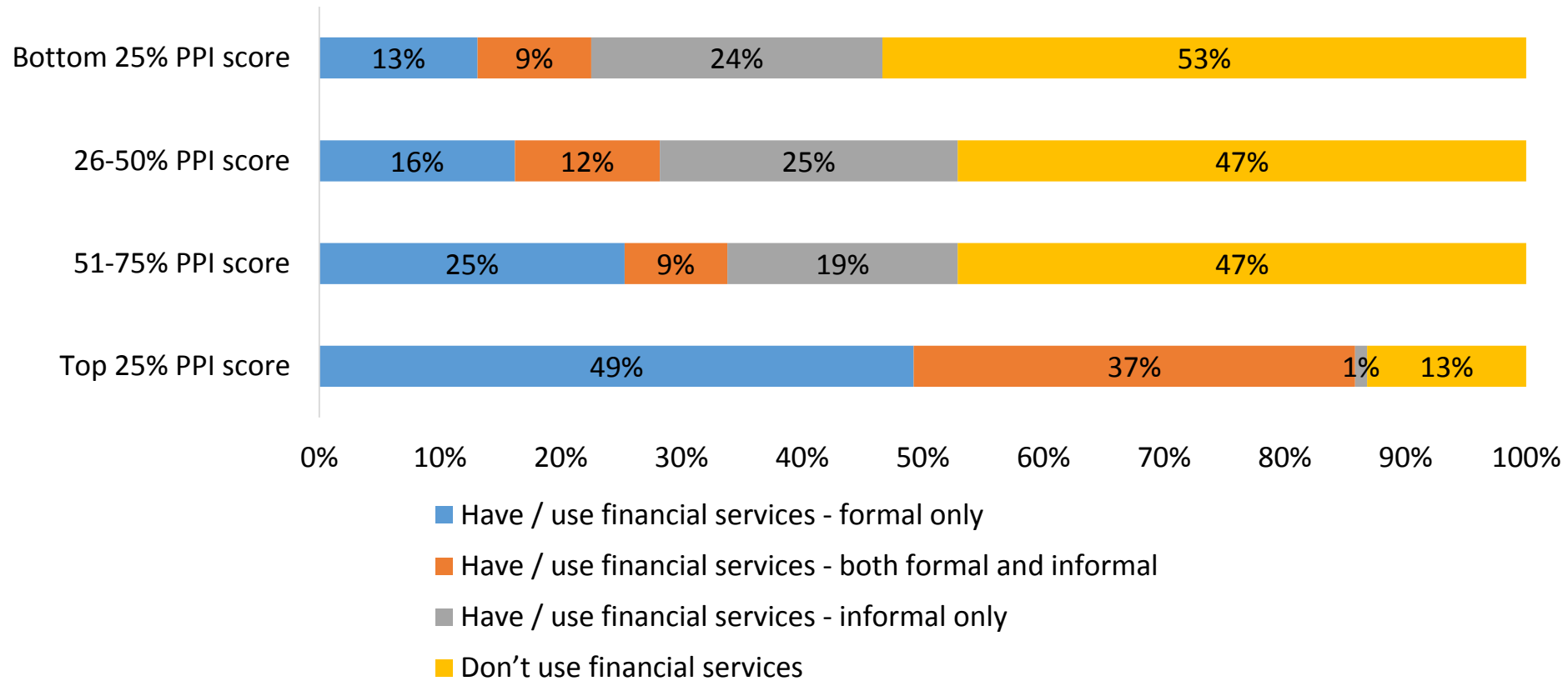## Farmers' financial inclusion strands by gender

Female	13%	9%	26%	52%
Male	20%	13%	22%	46%

0%   20%   40%   60%   80%   100%

- ■ Have / use financial services - formal only
- ■ Have / use financial services - both formal and informal
- ■ Have / use financial services - informal only
- ■ Don't use financial services

Financial inclusion strands by age

16-25	12%	8%	29%	52%
26-35	10%	10%	29%	51%
36-45	18%	12%	24%	46%
46-55	22%	15%	20%	44%
56-65	23%	11%	16%	50%
66+	31%	9%	7%	52%

0%   20%   40%   60%   80%   100%

Source: FSD Zambia Finscope report

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There is a large increase in formal account usage for the wealthiest farmers

Farmers' financial inclusion strands by PPI

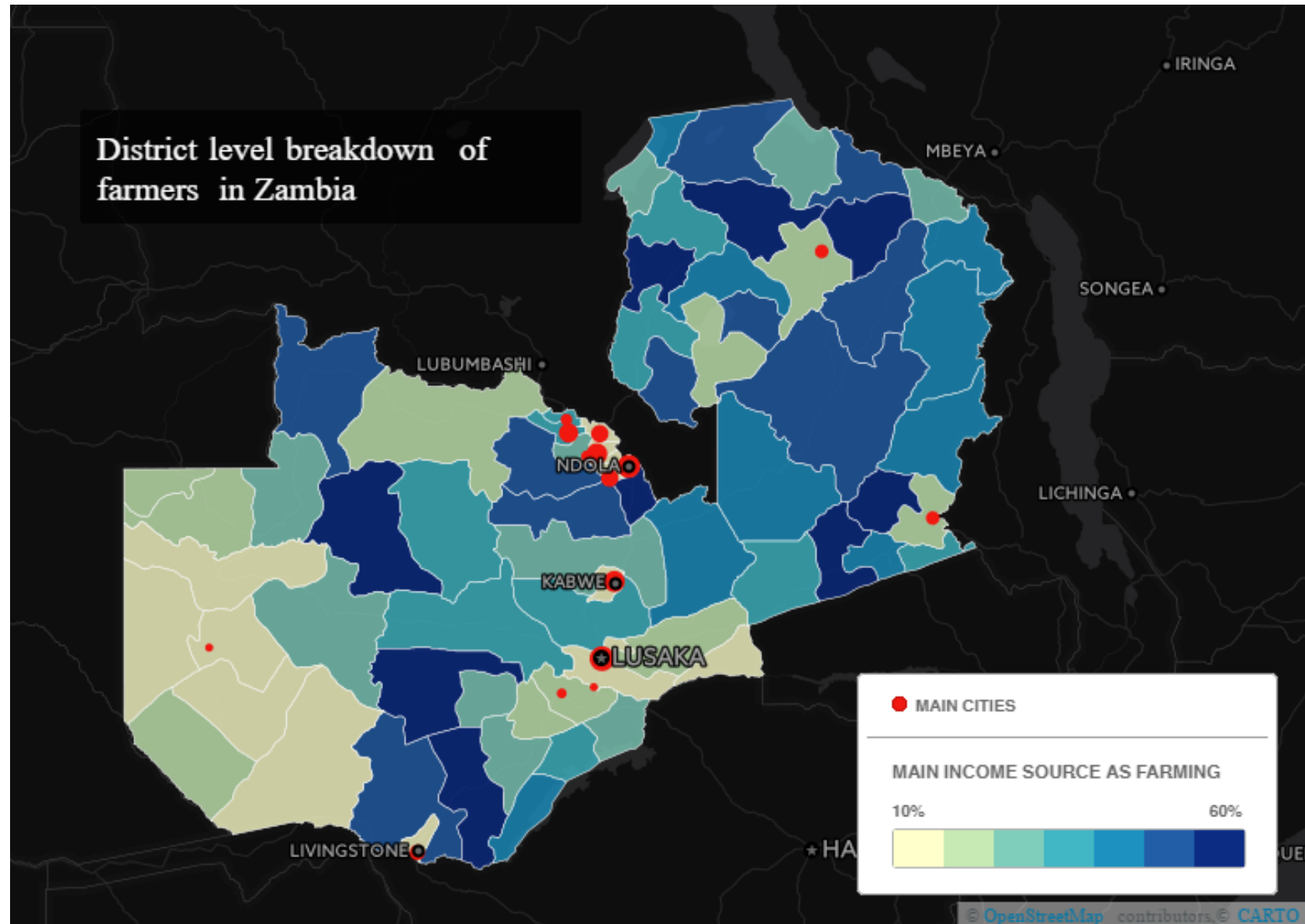| PPI Score	Formal only	Both formal and informal	Informal only	Don't use
Bottom 25% PPI score	13%	9%	24%	53%
26-50% PPI score	16%	12%	25%	47%
51-75% PPI score	25%	9%	19%	47%
Top 25% PPI score	49%	37%	1%	13%

- ■ Have / use financial services - formal only
- ■ Have / use financial services - both formal and informal
- ■ Have / use financial services - informal only
- ■ Don't use financial services

Source: FSD Zambia Finscope report

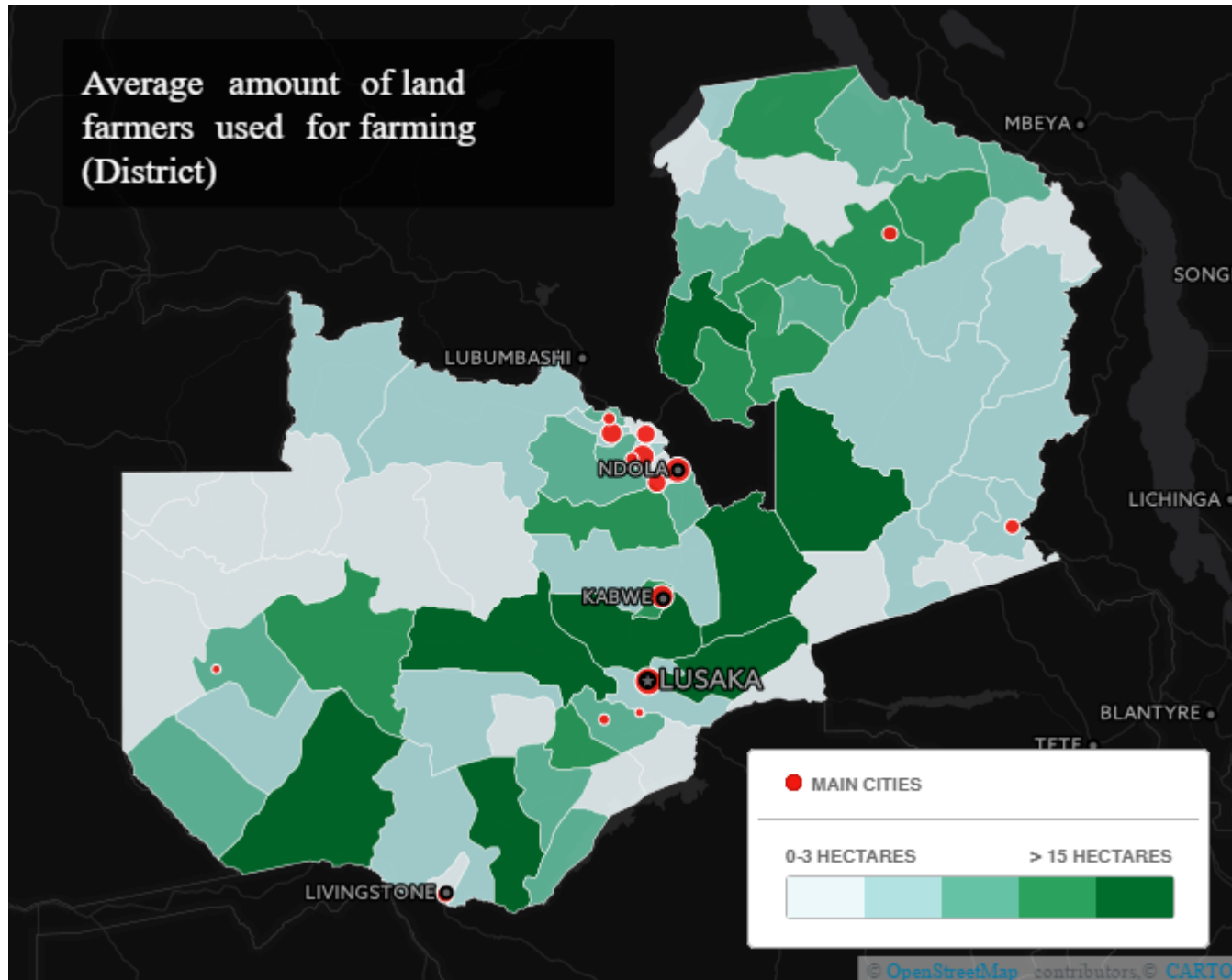# Mapping Zambian farmers

Zambians living in a district without a main city are more likely to report farming as their main income source

District level breakdown of farmers in Zambia

MAIN CITIES

MAIN INCOME SOURCE AS FARMING

10%   60%

18

Source: 2015 Finscope

The majority of farmers (89%) reported owning their own land for farming, but land sizes vary

Across provinces women report smaller land sizes than men (all women, includes women not heads of household)

*There are number of districts with less than 5 farmers

Land size (Hectares)		
Province	**Male**	**Female**
Central	18.4	8.1
Copperbelt	6.2	3.5
Eastern	3.4	2.5
Luapula	8.8	5.8
Lusaka	21.6	5.8
Muchinga	4.6	2.9
North Western	3.3	1.9
Northern	7.3	2.9
Southern	8.6	3.6
Western	7.3	5.3

Red = lower scores
Green = higher scores

19

Source: 2015 Finscope

Farmers living in southern districts are farther away from banks and ATMS

Percent of farmers within 1 hour of a bank or ATM (District)

MAIN CITIES

< 10%   100%

Source: 2015 Finscope
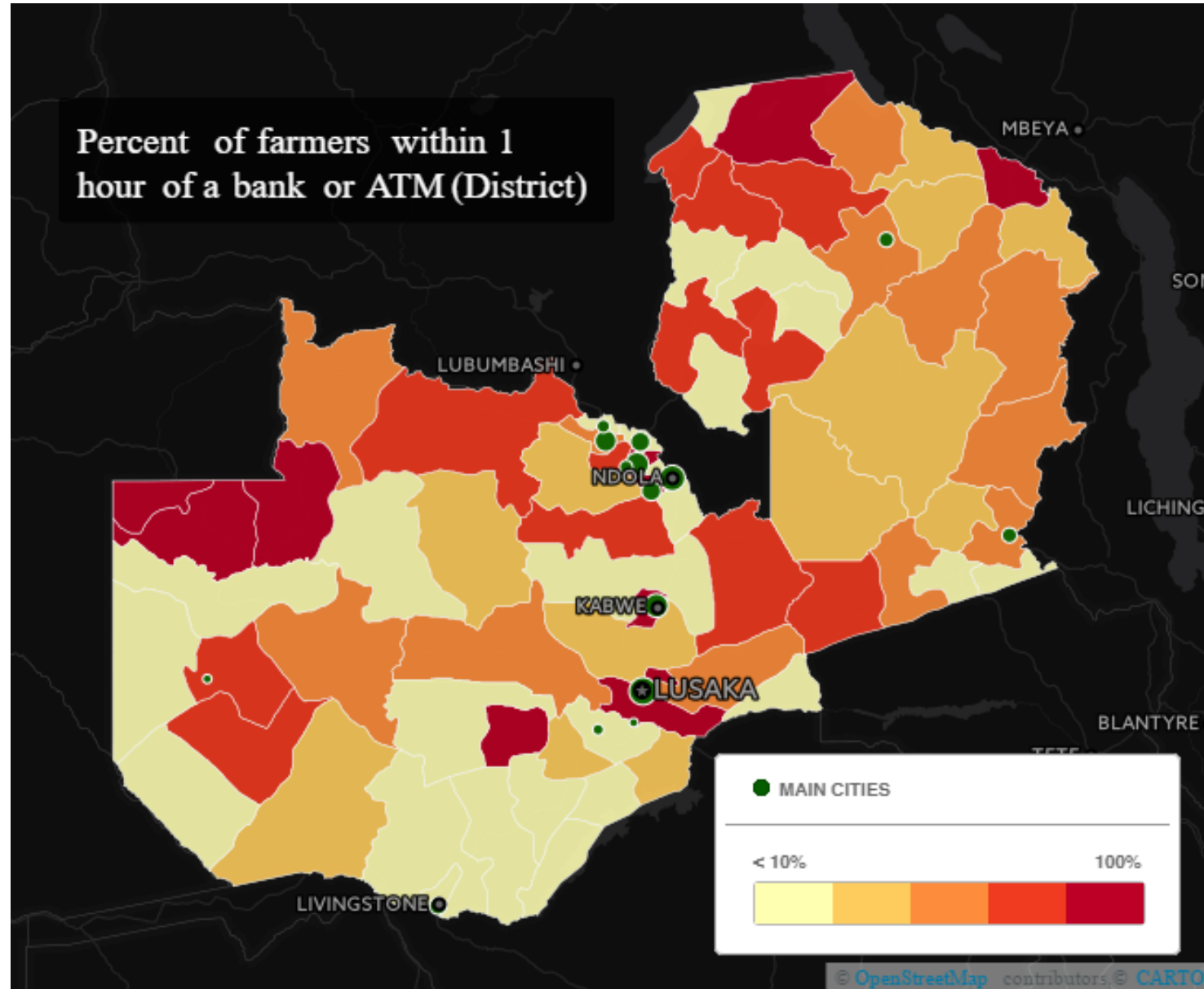
While crop farming is ubiquitous, farmers in the Southern Province and Lusaka are more likely to farm vegetables, livestock and poultry
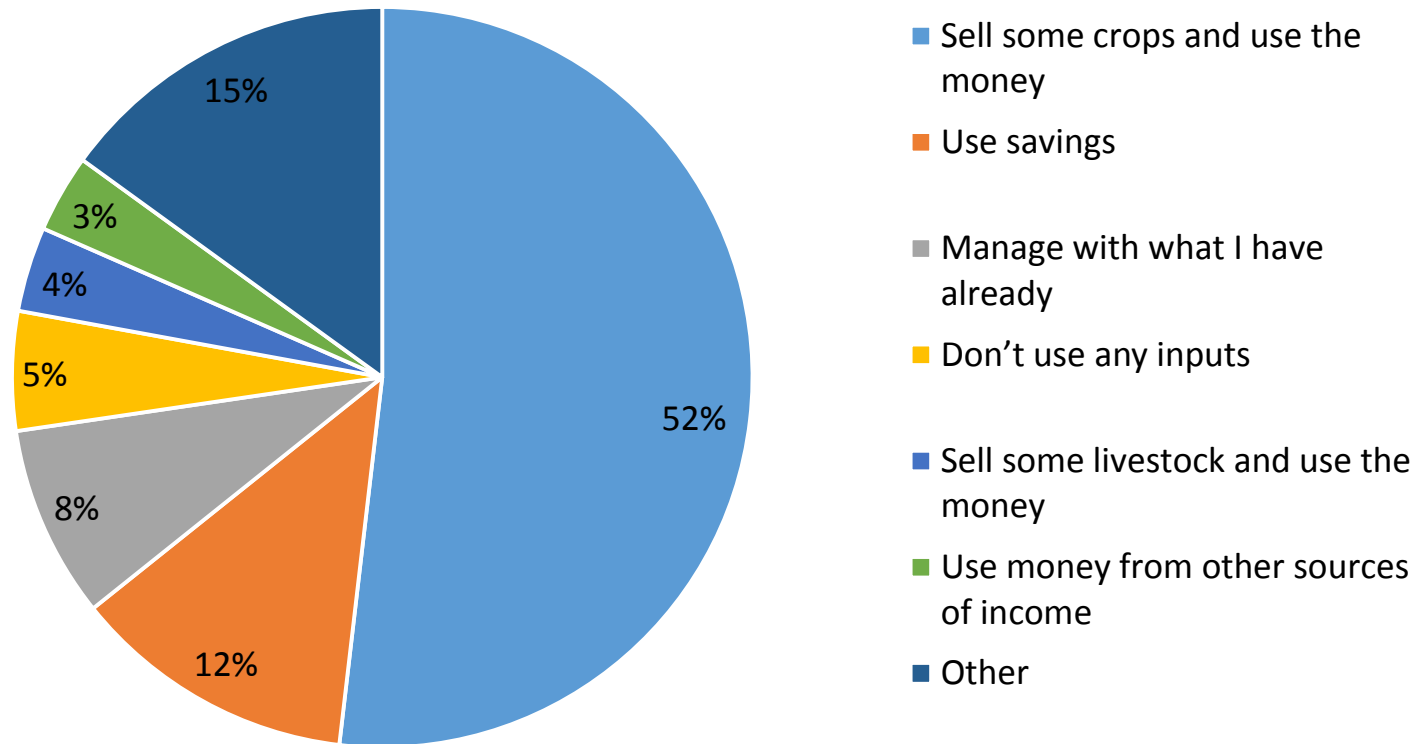

Farming type (% of farmers)

Legend: Crops, Vegetables, Livestock, Poultry

Province	Crops	Vegetables	Livestock	Poultry
Western	97%	24%	16%	12%
Southern	87%	61%	65%	66%
Northern	97%	32%	16%	18%
North Western	94%	40%	21%	15%
Muchinga	97%	30%	15%	17%
Lusaka	76%	56%	44%	43%
Luapula	94%	17%	9%	5%
Eastern	96%	37%	39%	37%
Copperbelt	91%	50%	19%	14%
Central	91%	32%	36%	29%
Sample	92%	39%	28%	27%
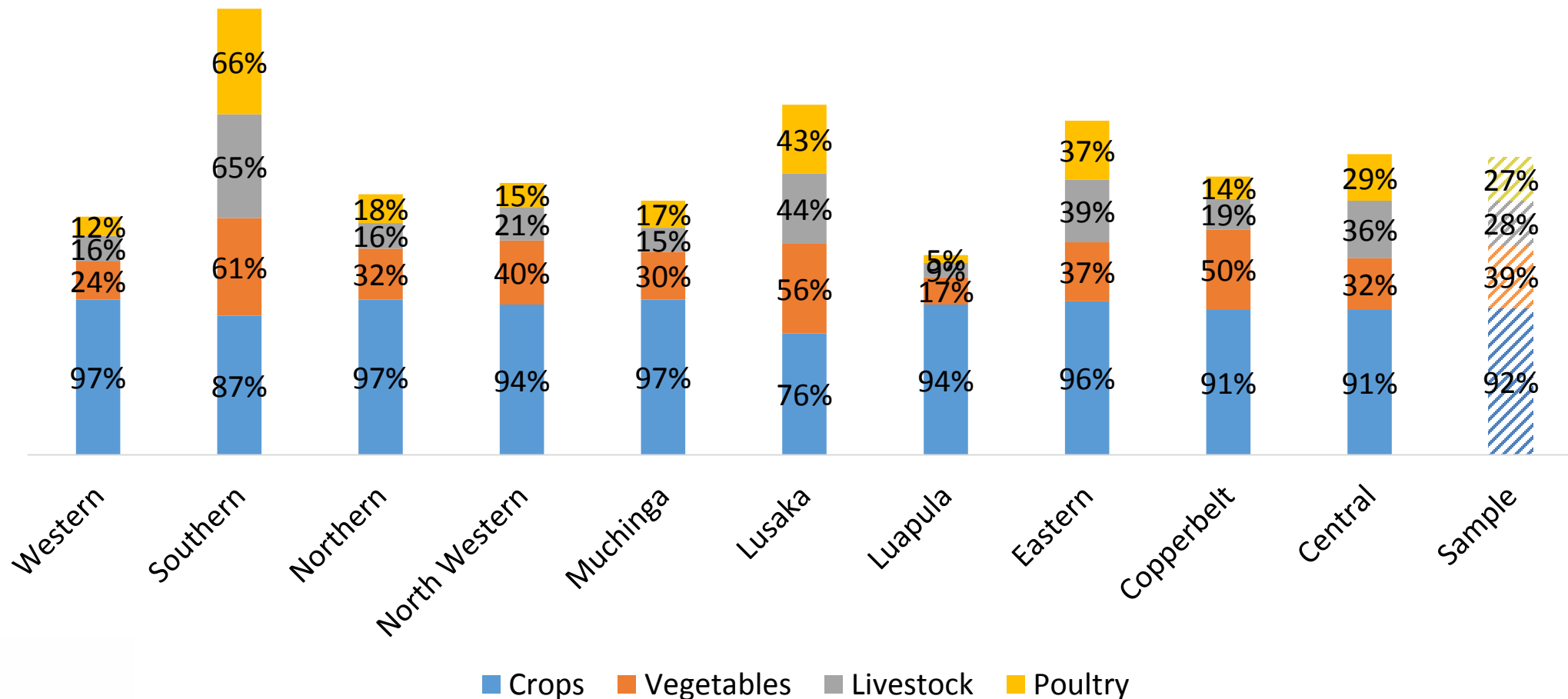
Crop farming occurs only seasonally, while livestock and poultry farming occur throughout the year

Frequency of farming
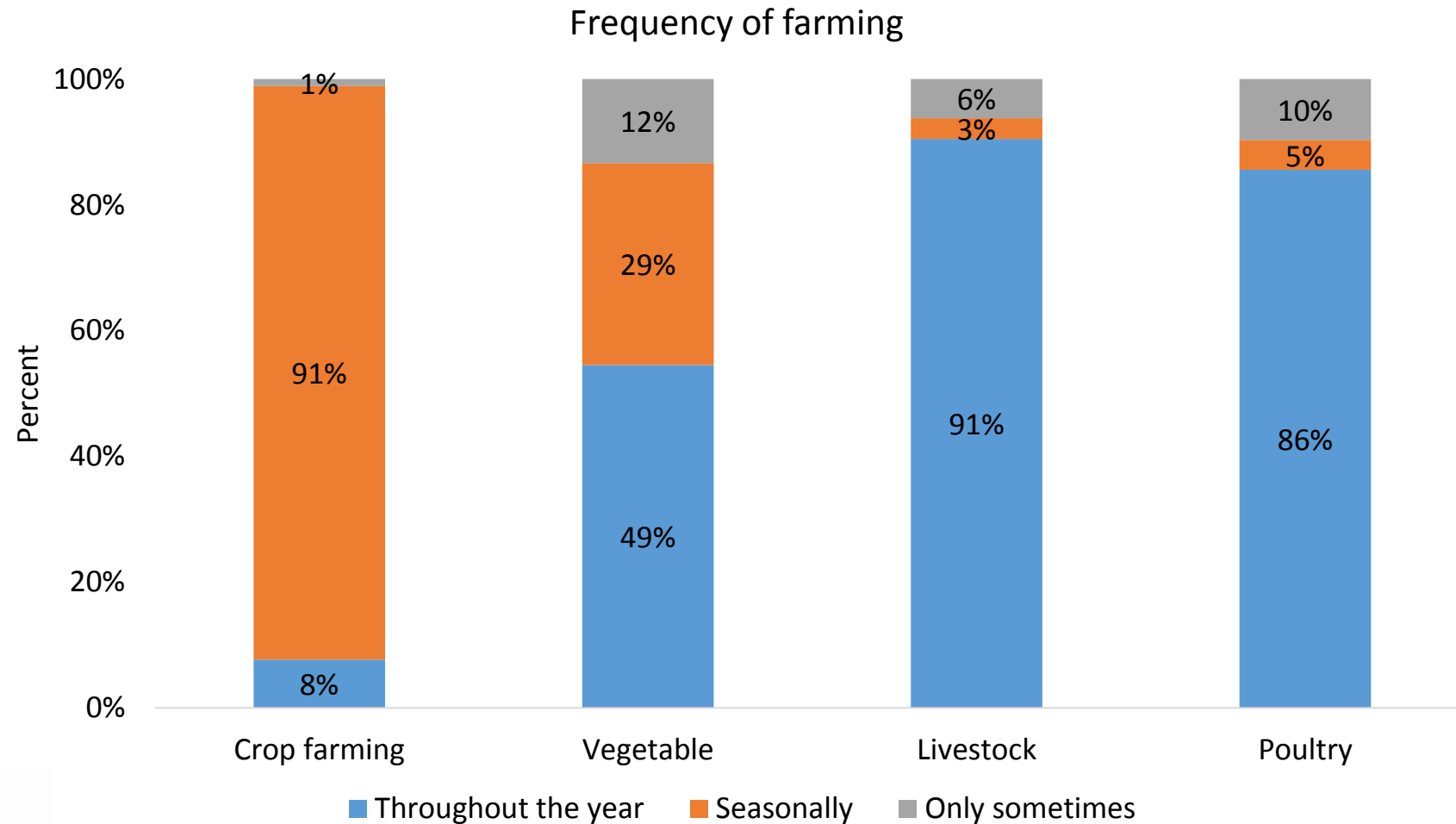
Seasonal farming refers to farming only during the rainy season

Legend: ■ Throughout the year ■ Seasonally ■ Only sometimes

The majority of farmers rely on their harvest to pay for farming equipment/inputs
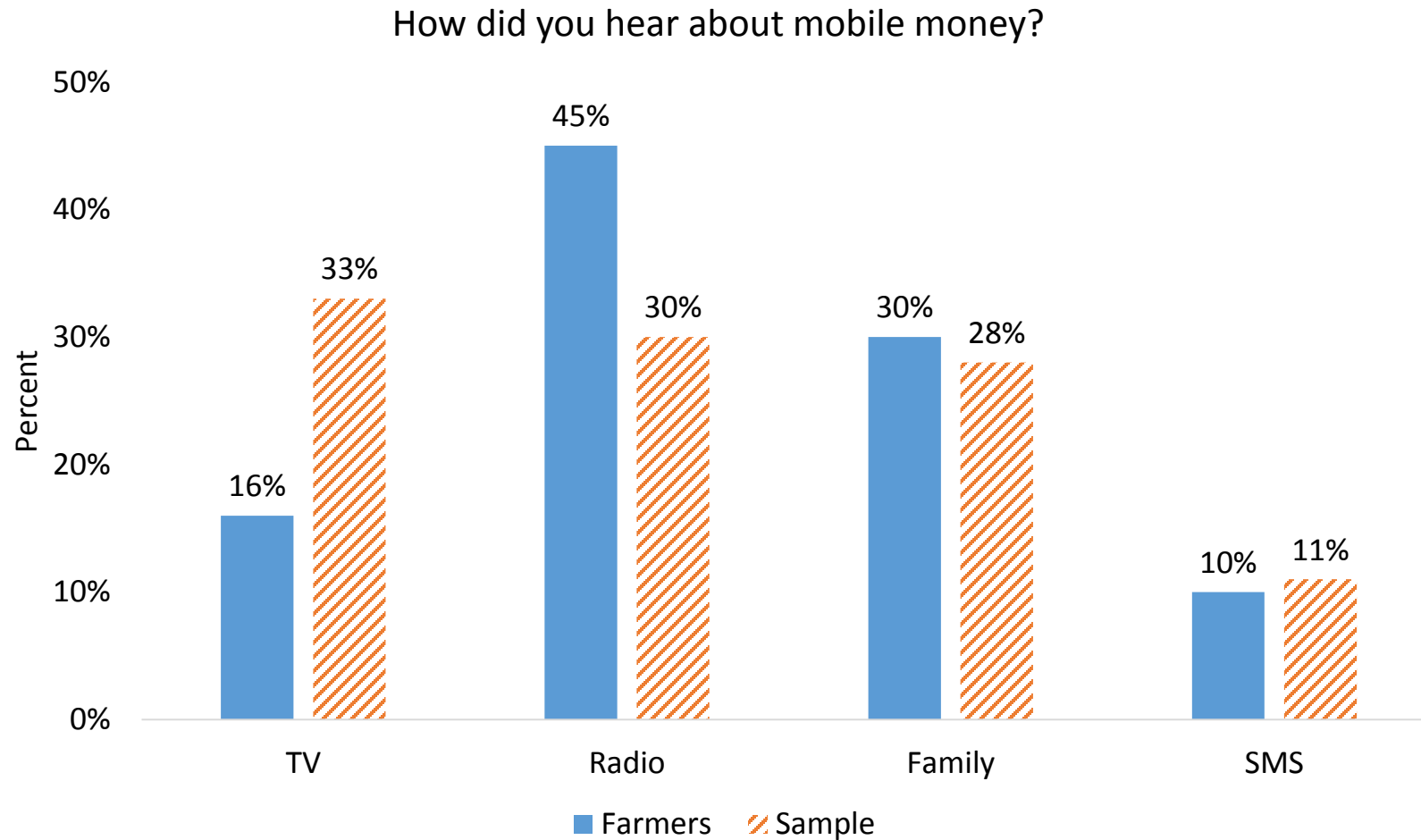
How do you get money for your farming equipment?

- Sell some crops and use the money
- Use savings
- Manage with what I have already
- Don't use any inputs
- Sell some livestock and use the money
- Use money from other sources of income
- Other

52%
12%
8%
5%
4%
3%
15%

Mobile Money Readiness Index

Mobile money knowledge and use remains low across farmers

Mobile money knowledge and use

Legend:
- ■ Heard of mobile money
- ■ Have or use mobile money

Farmers: 37%, 5%
Sample: 53%, 14%
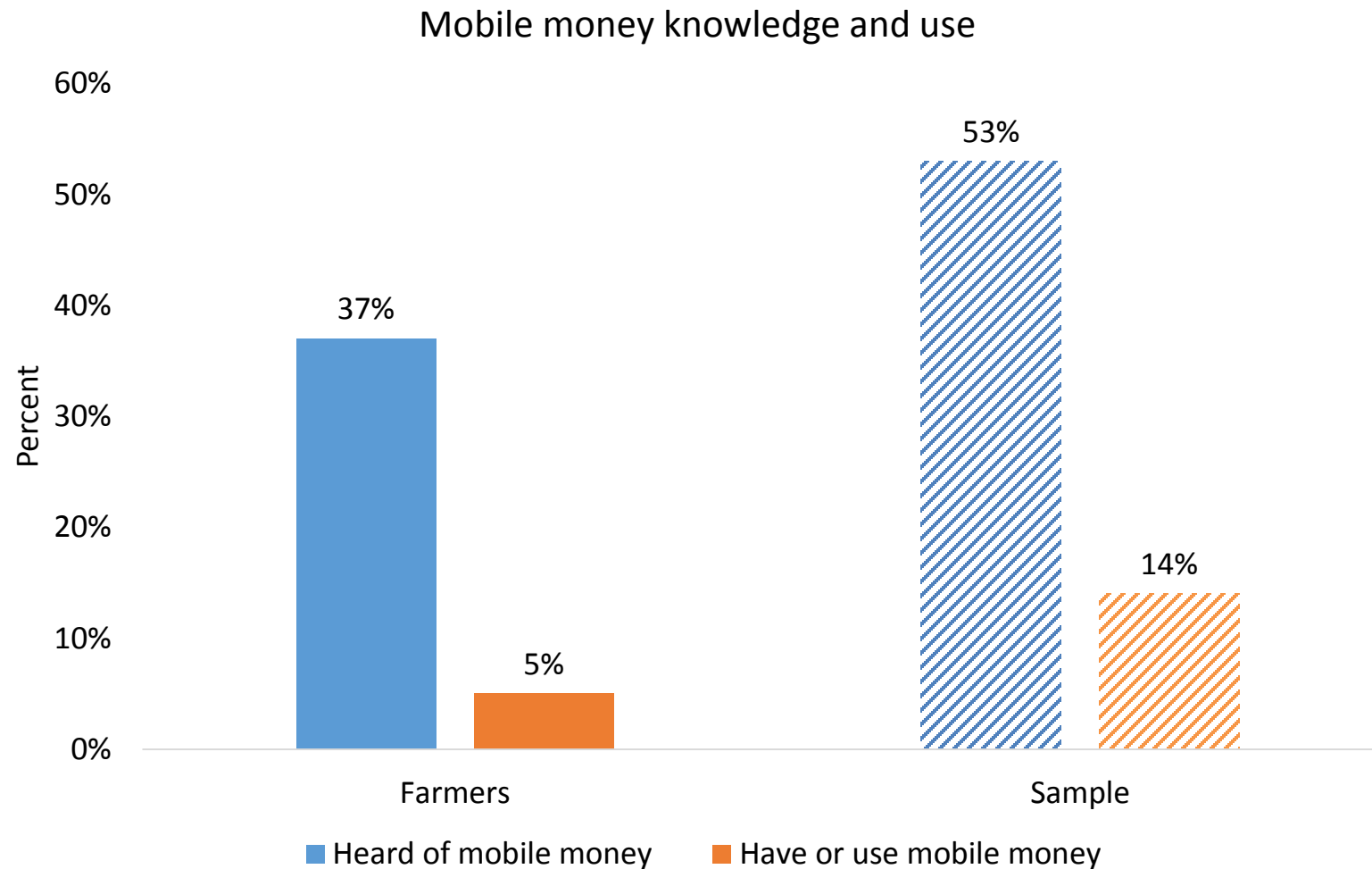
Farmers who have heard of mobile money mainly heard about it through the radio and through their family

How did you hear about mobile money?

Percent

	TV	Radio	Family	SMS
Farmers	16%	45%	30%	10%
Sample	33%	30%	28%	11%

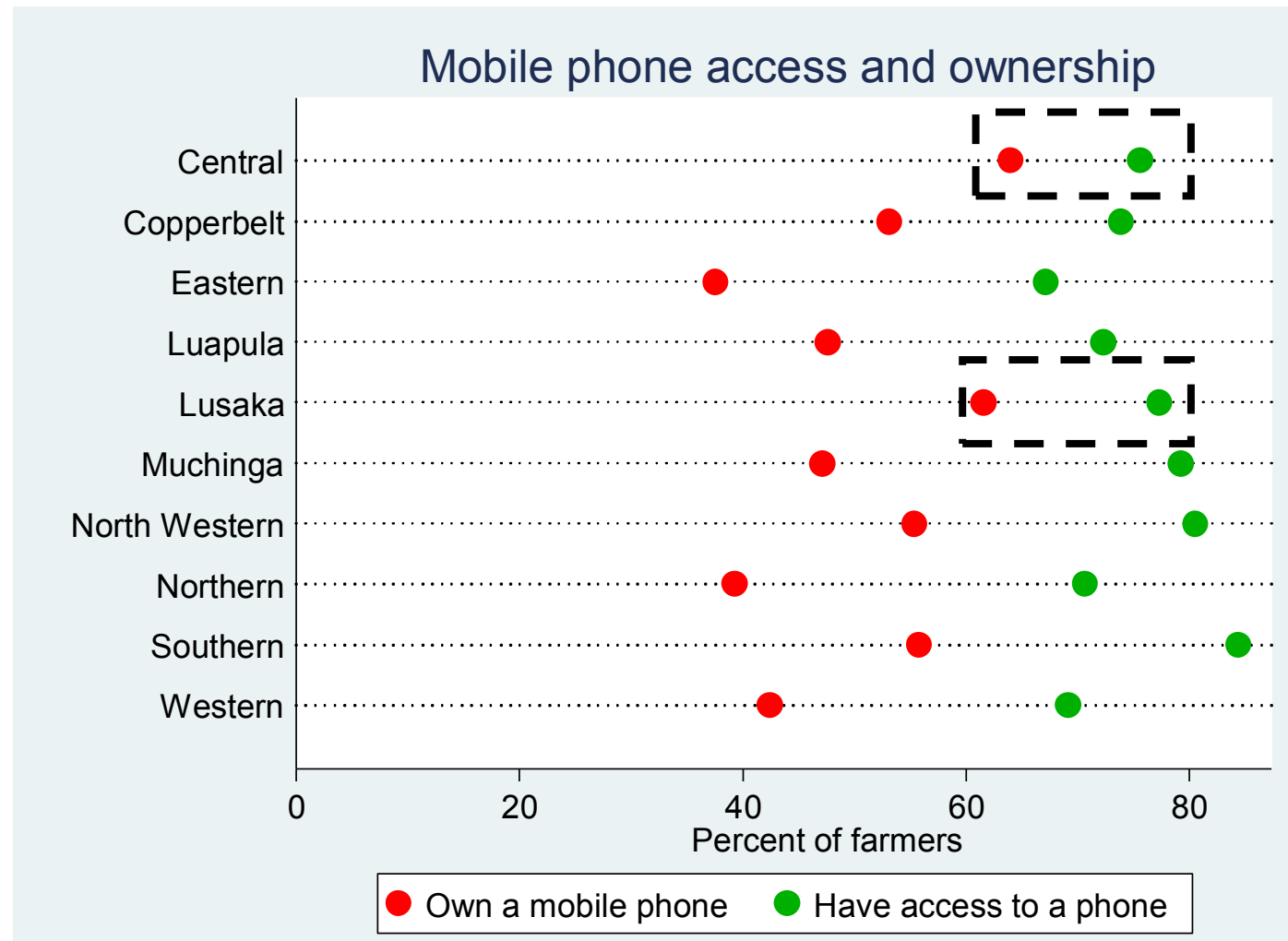■ Farmers ▨ Sample

Women are less likely than men to have access to a phone, own a phone, know of mobile money and have/use mobile money

Mobile phone and mobile money access and usage

	Household head and male	Non household head male	Household head and female	Non household head female
Have or use mobile money	7%	7%	4%	3%
Heard of mobile money	46%	41%	22%	26%
Own a phone	59%	52%	39%	37%
Access to a phone	78%	78%	64%	73%

Legend: ■ Access to a phone ■ Own a phone ■ Heard of mobile money ■ Have or use mobile money
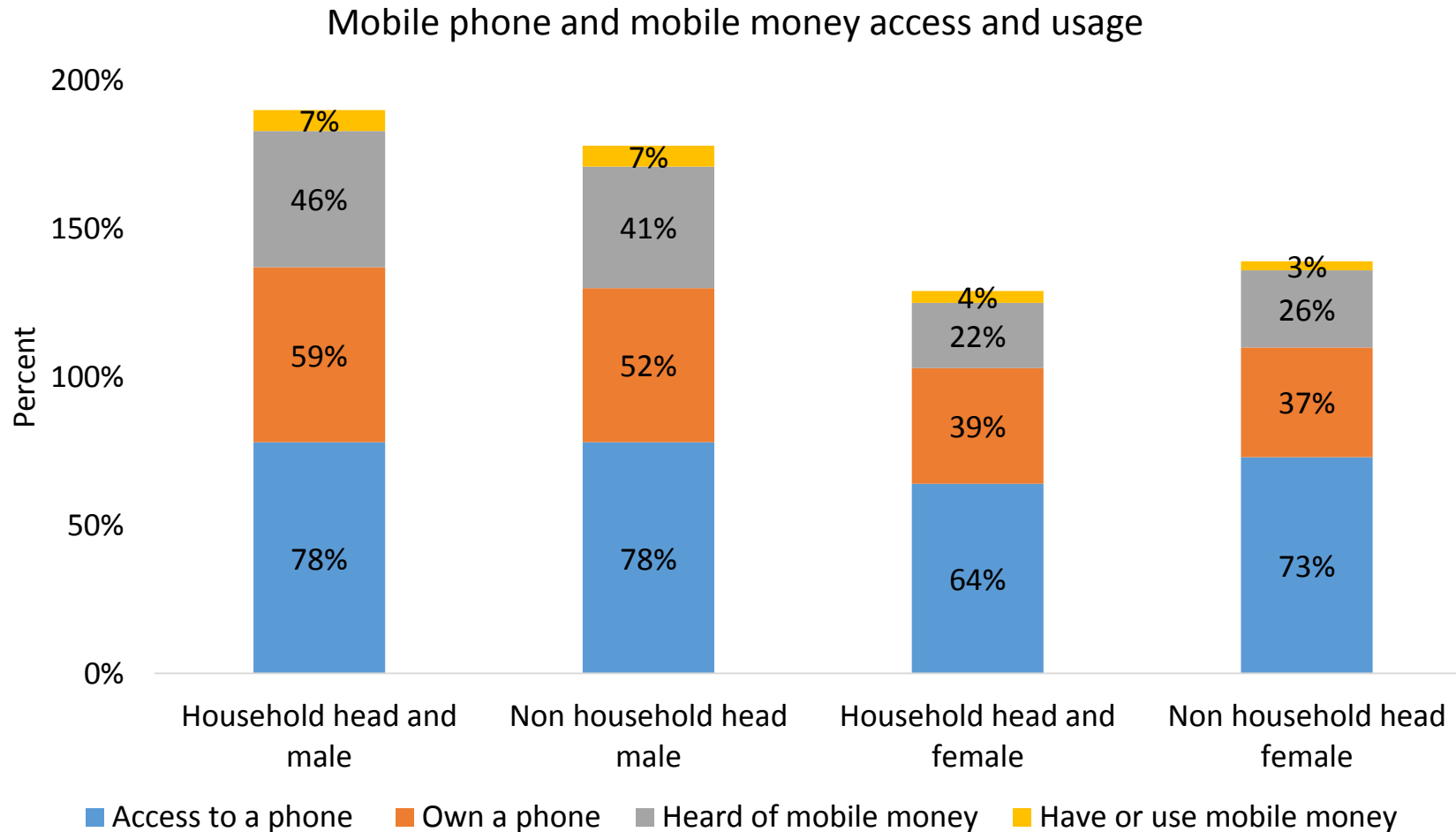
Mobile phone access does not significantly differ but ownership, knowledge of mobile money and usage are significantly higher for wealthier farmers
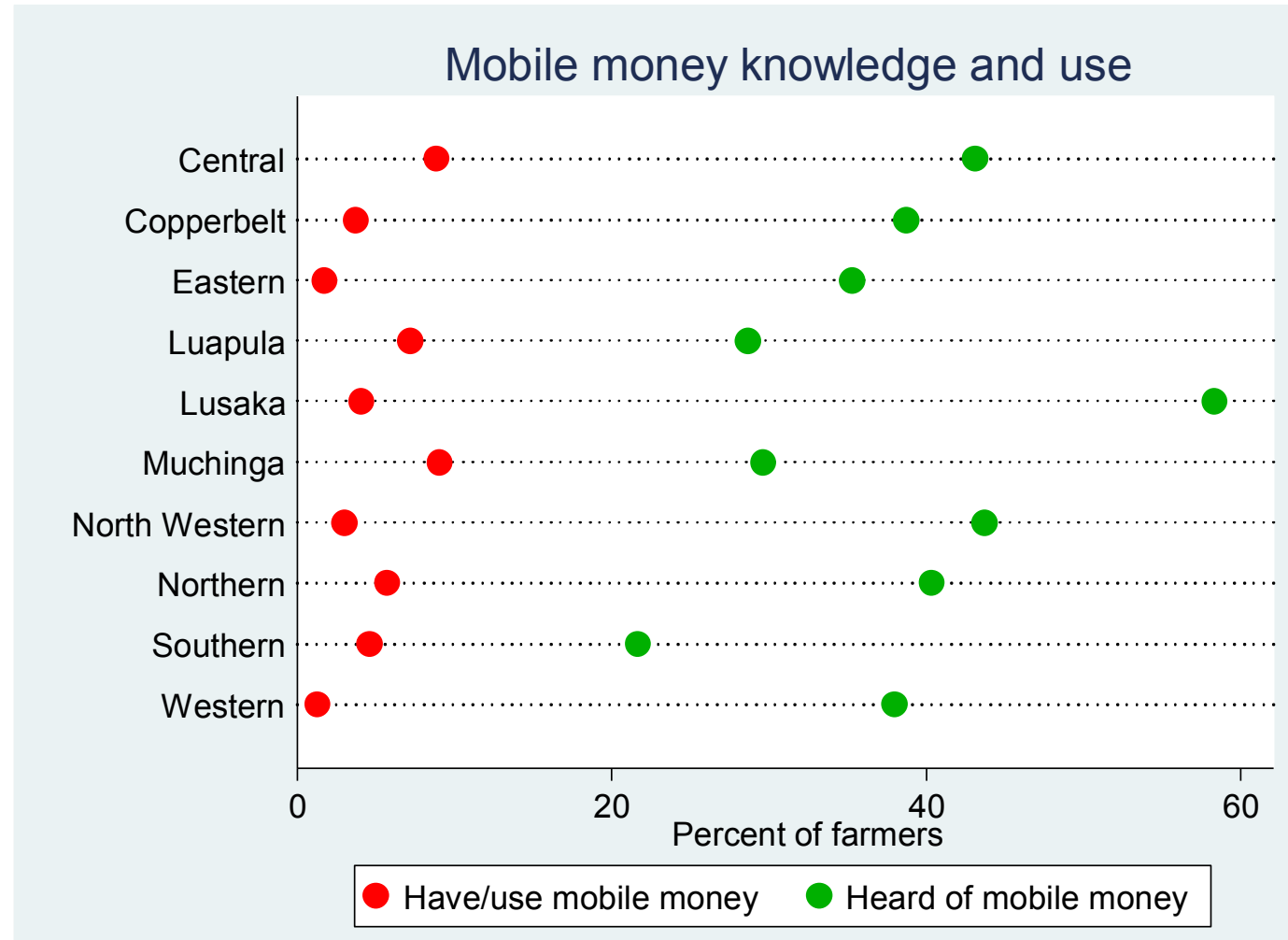

Mobile phone, mobile money access and usage

Legend: Access to a phone | Own a phone | Heard of mobile money | Have or use mobile money

Bottom 25% PPI score: 76%, 45%, 27%, 2%
26-50% PPI score: 72%, 50%, 39%, 5%
51-75% PPI score: 81%, 62%, 50%, 13%
Top 25% PPI Score: 65%, 65%, 83%, 16%
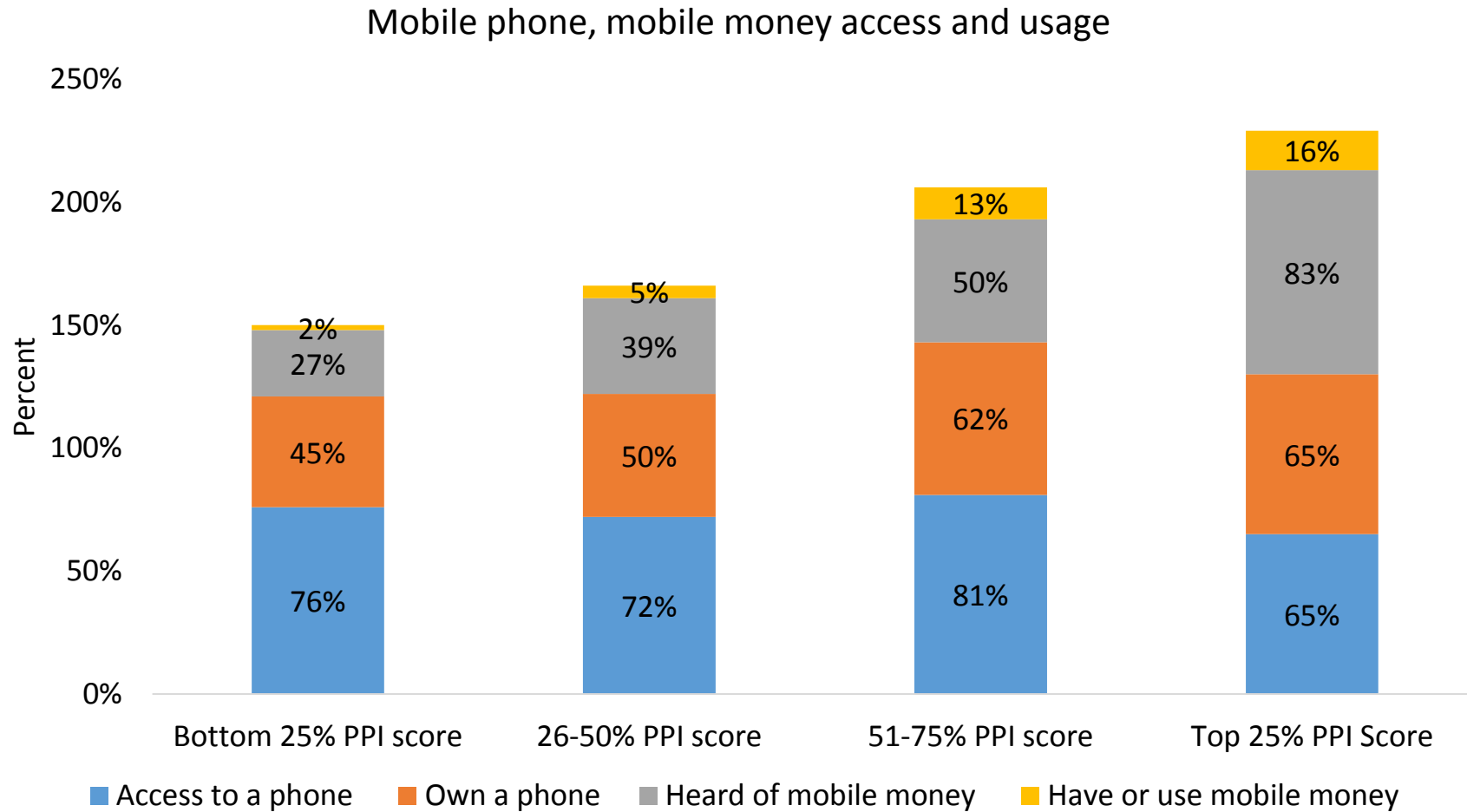
Farmers in Central and Lusaka Provinces have the smallest gap between access and ownership of a mobile phone

Mobile phone access and ownership

Legend:
- Own a mobile phone (red)
- Have access to a phone (green)

Y-axis (provinces): Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, North Western, Northern, Southern, Western

X-axis: Percent of farmers (0, 20, 40, 60, 80)

While the majority of farmers in Lusaka have heard of mobile money they are one of the least likely groups to have/use it

Mobile money knowledge and use
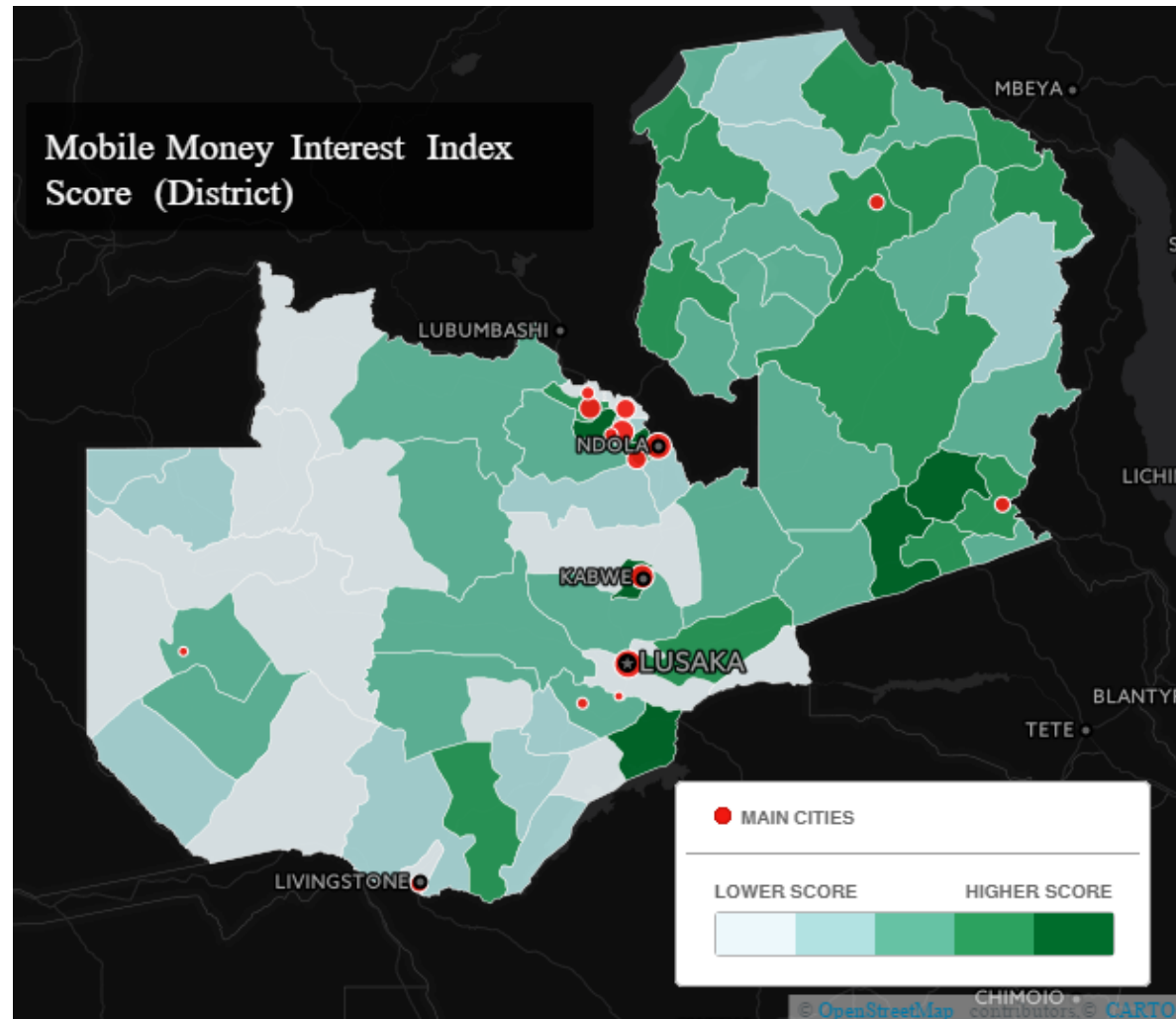

Legend:
- ● Have/use mobile money (red)
- ● Heard of mobile money (green)

X-axis: Percent of farmers (0, 20, 40, 60)

Categories (top to bottom): Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, North Western, Northern, Southern, Western

The FinScope survey has a host of True/Not True questions that can be used to create a score measuring potential interest in mobile money

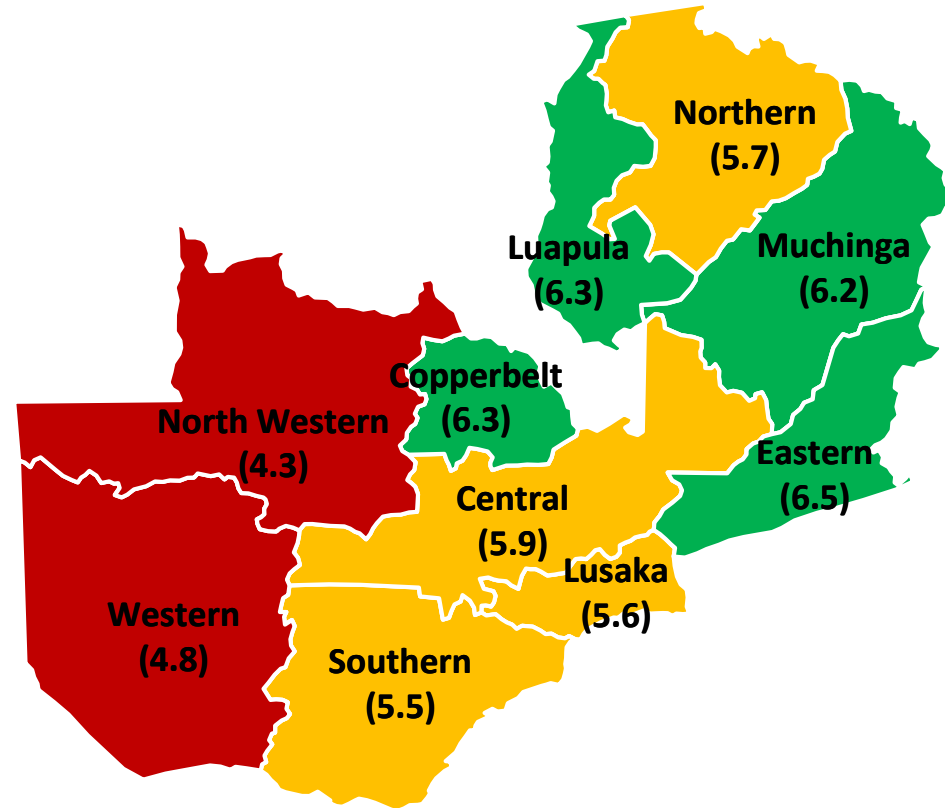Calculation of **Mobile Money Readiness Index (MMRI)**

- Score is from 0 – 10 and based on the following questions:
  - You do not like carrying cash
  - You would rather deal with people face to face than with machines such as ATMs eve if the machines are quicker (1 if not true)
  - You are prepared to learn how to use new technology
  - You prefer to pay for goods and services in cash rather than using electronic means (1 if not true)
  - You would like to use a mobile phone to pay for goods and services
  - You would like to use a mobile phone to put money away so you can use it later
  - You would like to use a mobile phone to pay utility bills such as water
  - One can easily lose money if you send/receive using a mobile phone (1 if not true)
  - If you save money on your phone and your phone is lost you cannot get back your money (1 if not true)
  - You have access to a mobile phone
- Score is for farmers who have at least heard of mobile money

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Bankable Frontier Associates

Farmers in districts with a main city have higher *Mobile Money Readiness Scores*

Source: 2015 Finscope

Opportunity area 4c: Target populations for DFS
Farmers in Copperbelt, Luapula, Muchinga, and Eastern have a higher Mobile Money Readiness Index, hence more likely to be early adopters of DFS and DIS products

Key:

Color	Score	Description
Red	<5	Scores between 0 – 5	low mobile money readiness
Yellow	5-6	Scores between 5-6	medium mobile money readiness
Green	>6	Scores greater than 6	high mobile money readiness

Mobile Money Readiness Index (MMRI) scores for top 22 districts (> 6 out of 10)

1. Eastern	6.5
Nyimba	8.0
Mambwe	7.3
Chipata	6.5
Katete	6.2

2. Copperbelt	6.3
Kalulushi	8.4
Ndola	7.9
Luanshya	7.8
Chingola	6.5
Kalomo	6.1

3. Luapula	6.3
Kawambwa	6.9
Nchelenge	6.8
Mansa	6.5

4. Muchinga	6.2
Mpika	7.0
Isoka	6.8
Mafinga	6.5
Nakonde	6.1

5. Central	5.9
Kabwe	7.6

6. Northern	5.7
Mpulungu	6.4
Kasama	6.2
Mungwi	6.2

7. Lusaka	5.6
Chongwe	6.2

8. Southern	5.5
Siavonga	7.4

AgriFin Accelerate (AFA) Ecosystem Study, BFA analysis of FinScope 2015 data

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The most educated Zambians have higher Mobile Money Readiness scores

Potential mobile money interest score (Sample)

Main income source	16-25	26-35	36-45	46-55	56-65	66+
Farming	5.7	5.9	5.7	6.1	5.1	5.3
Salary/Wages	6.4	6.5	6.5	6.7	5.3	4.9
Self-employed own business	6.4	6.3	6.0	6.6	6.1	4.2
Casual	6.4	6.1	6.5	4.3	6.6	3.1
HH member or friend	6.2	6.3	6.0	6.0	7.0	5.1
Other	6.0	5.8	6.1	5.3	5.3	5.9

Potential Mobile Money Readiness score (Sample)

Education level	16-25	26-35	36-45	46-55	56-65	66+
No formal education	6.0	5.0	3.8	5.4	4.1	4.6
Grades 1-4	4.5	5.1	6.2	5.1	5.2	3.8
Grades 5-7	5.5	5.5	5.9	5.9	5.4	5.4
Grades 8-9	5.9	6.1	5.9	6.1	5.3	6.1
Grades 10-12	6.6	6.6	6.6	6.4	5.5	5.2
Grade 12	6.9	6.9	7.2	6.1	7.1	5.0
Degree	7.1	7.0	7.4	7.0	6.6	5.9

Red = lower scores
Green = higher scores

Middle aged, higher educated farmers have a higher Mobile Money Readiness score

On average women have lower Mobile Money Readiness scores

Potential Mobile Money Readiness score (Farmers)		
Age bucket	Male	Female
16-25	5.6	5.9
26-35	6.1	5.6
36-45	6.0	5.2
46-55	6.5	4.7
56-65	5.3	4.4
66+	5.5	4.0

Potential Mobile Money Readiness score (Farmers)		
Education level	Male	Female
No formal education	4.1	4.3
Grades 1-4	5.3	5.6
Grades 5-7	5.9	5.1
Grades 8-9	6	5.5
Grades 10-12	6.1	5.7
Grade 12	6.4	8.2

Red = lower scores
Green = higher scores

Financial services

Zambians that report farming or casual labor as their main income source are least likely to have or use bank services

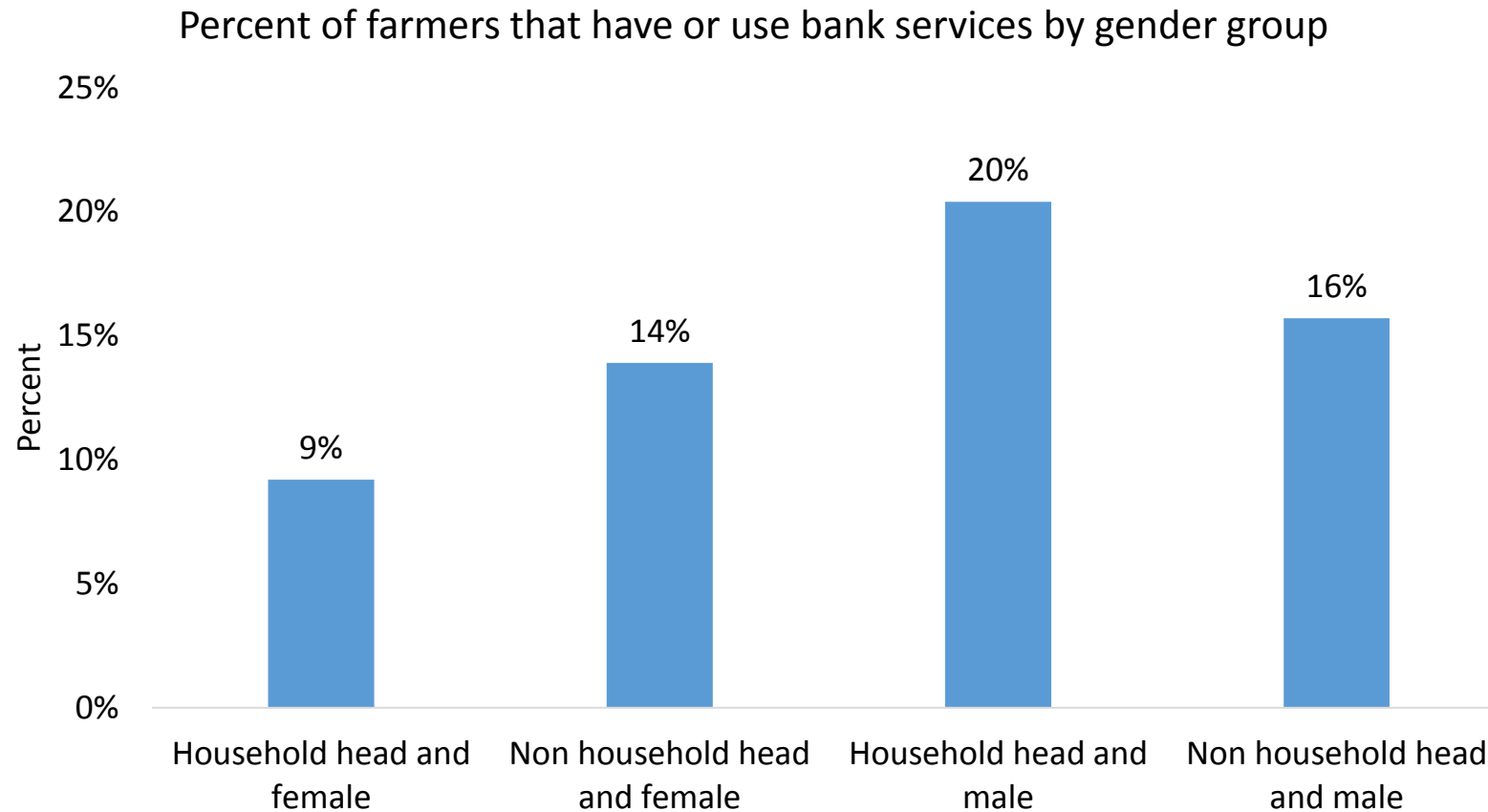Percent of respondents that have or use bank services by main income source

■ Male   ■ Female   ▨ Sample
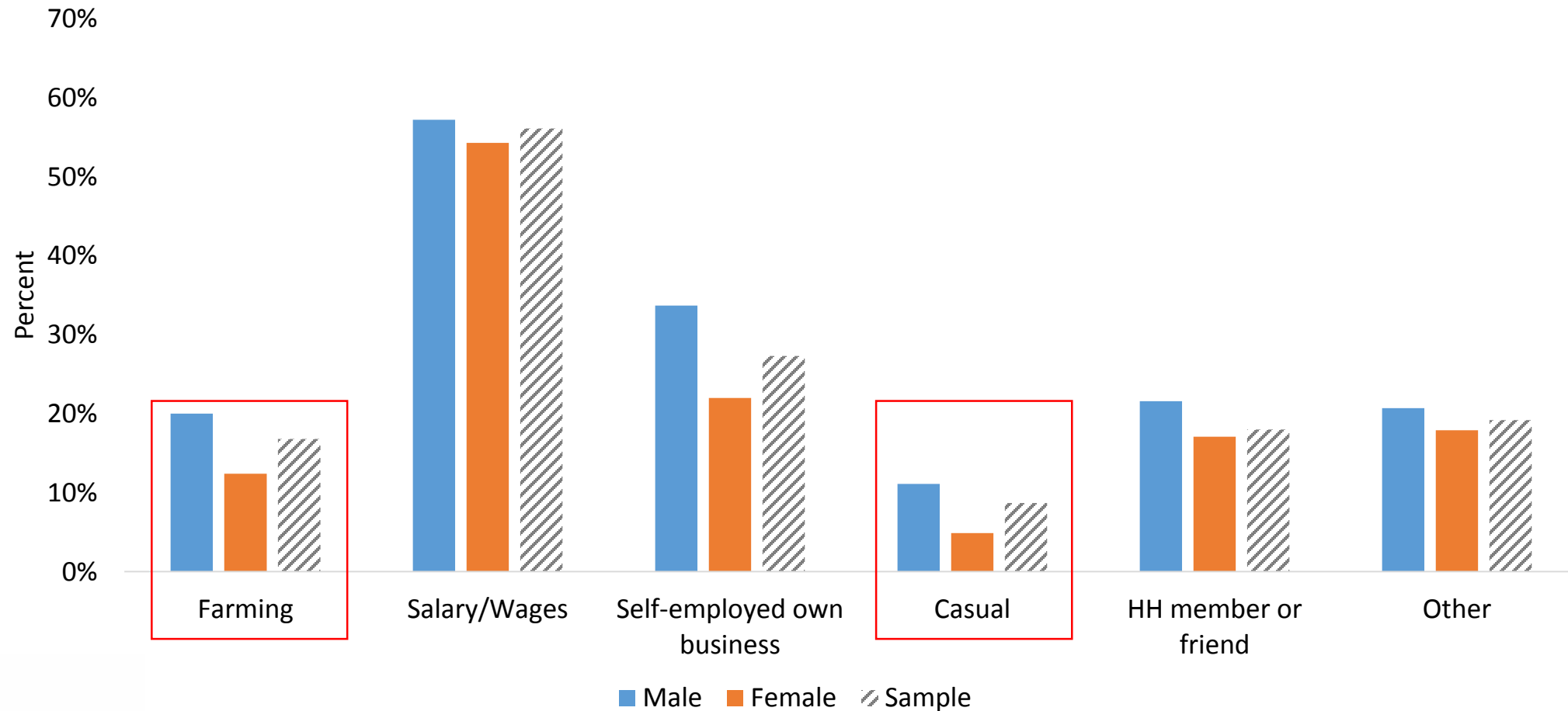
Across provinces female farmers are less likely then men to have or use bank services

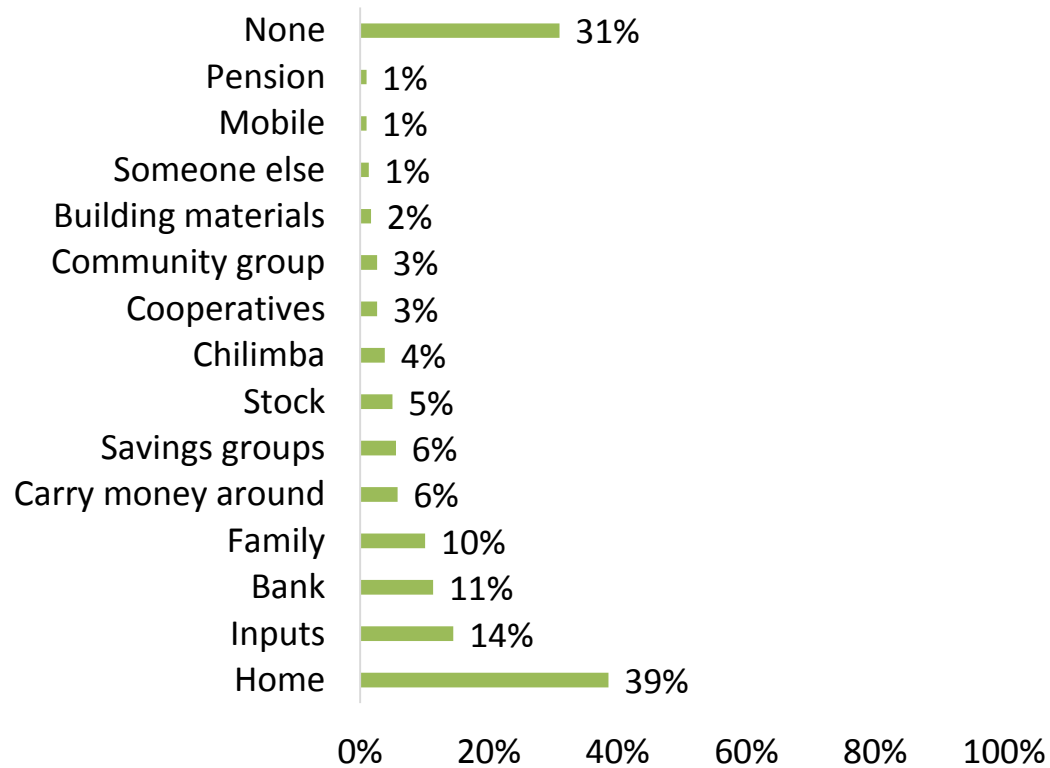## Percent of farmers that have or use bank services by province

Percent

Province	Male	Female
Central	22%	11%
Copperbelt	22%	11%
Eastern	17%	9%
Luapula	18%	12%
Lusaka	39%	31%
Muchinga	19%	6%
North Western	23%	26%
Northern	17%	9%
Southern	17%	18%
Western	5%	0%
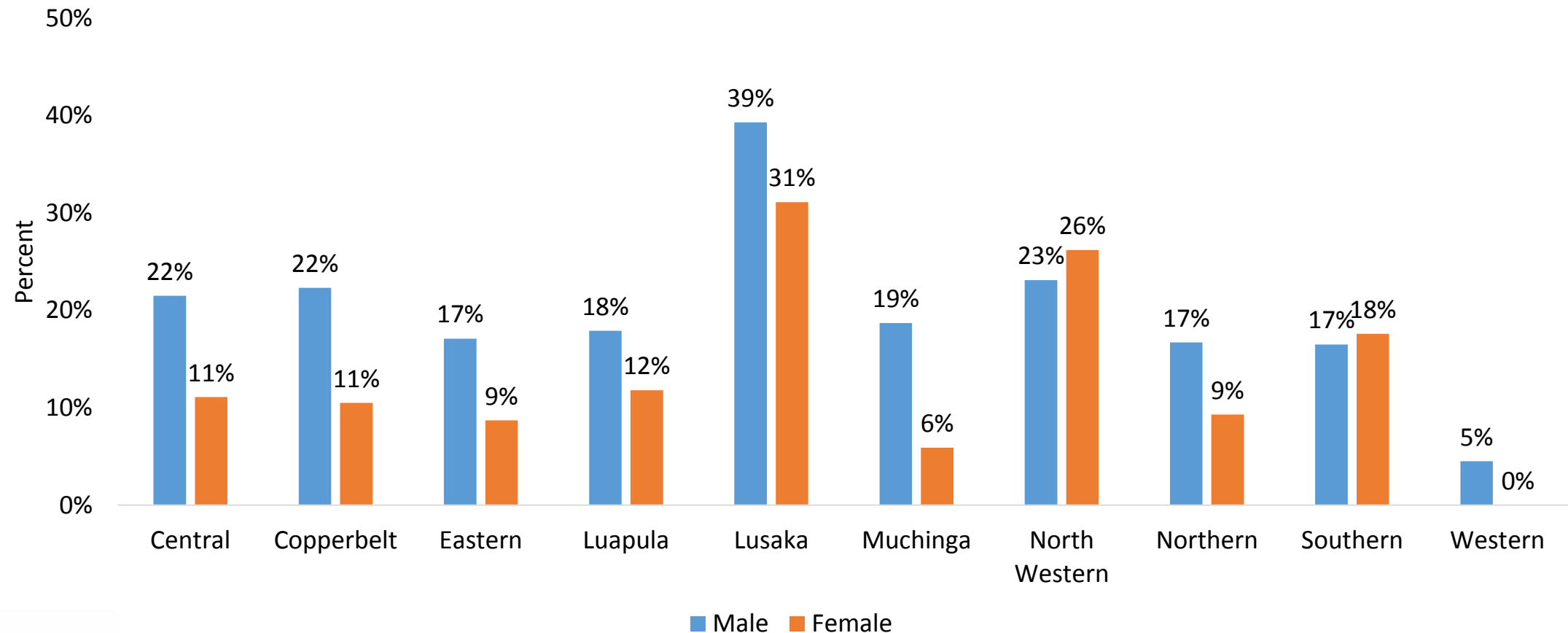
■ Male ■ Female

Household head female farmers are the least likely to have or use bank services

Percent of farmers that have or use bank services by gender group

Percent

- 25%
- 20%
- 15%
- 10%
- 5%
- 0%

9% — Household head and female

14% — Non household head and female

20% — Household head and male

16% — Non household head and male

Farmers rely heavily on informal channels for savings and borrowing

Savings products used (% of farmers)

Category	Value
None	31%
Pension	1%
Mobile	1%
Someone else	1%
Building materials	2%
Community group	3%
Cooperatives	3%
Chilimba	4%
Stock	5%
Savings groups	6%
Carry money around	6%
Family	10%
Bank	11%
Inputs	14%
Home	39%

Where have you borrowed from in the past 12 months (% of farmers)

Category	Value
Family	25%
Somoene in the community	2%
Bank	0%
MFI	0%
Other	2%
Have not borrowed	71%
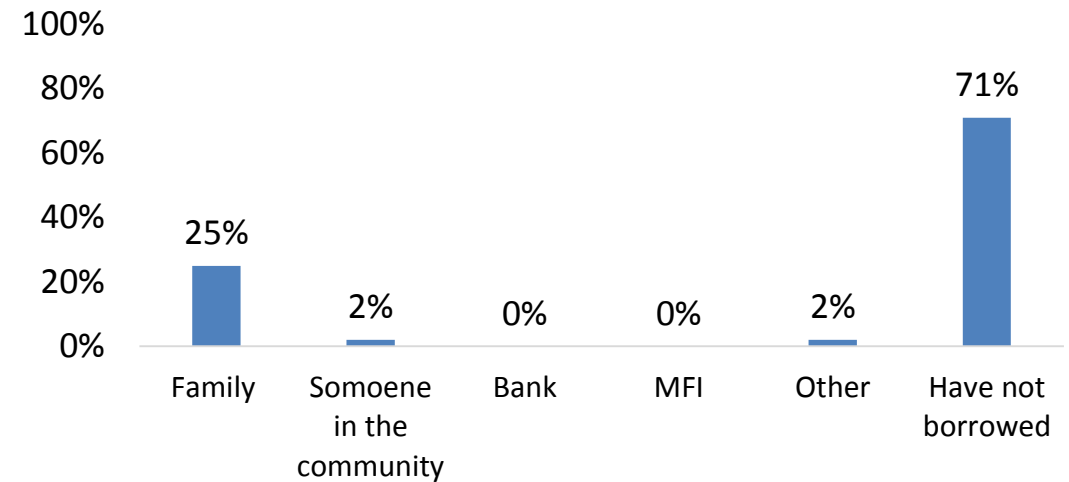
Only 29% of farmers have borrowed money in the past 12months and 87% of farmers who have borrowed money borrowed from family

Farmers use informal saving instruments like saving at home more actively than formal instruments such as saving at the bank

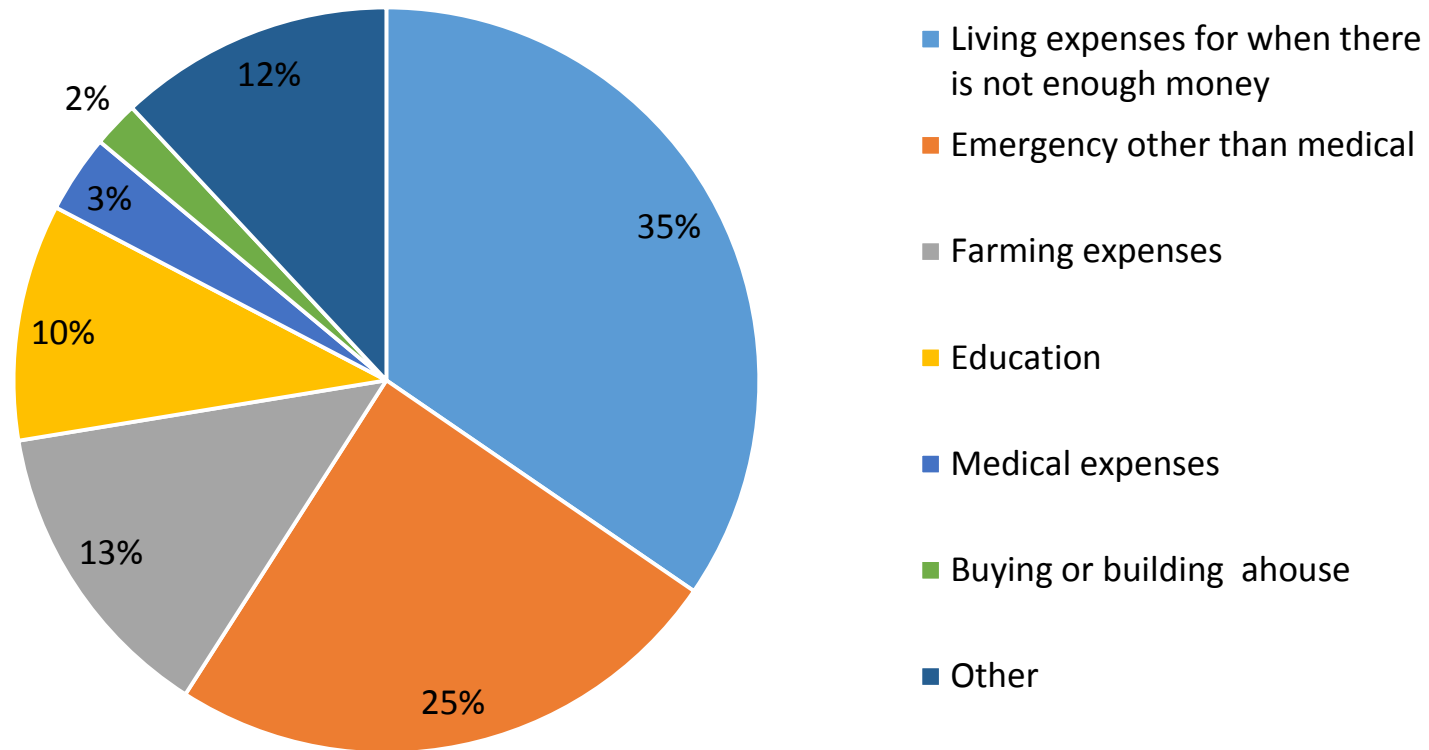## When did you last use the savings instrument?

- Carry money around — 35%
- Home — 13%
- Savings groups
- Chilimba
- Family
- Inputs
- Bank

0% 20% 40% 60% 80% 100%

Legend:
- Yesterday
- Past 7 days
- Past 30 days
- Past 3 months
- 3 to 6 months
- More than 6 months
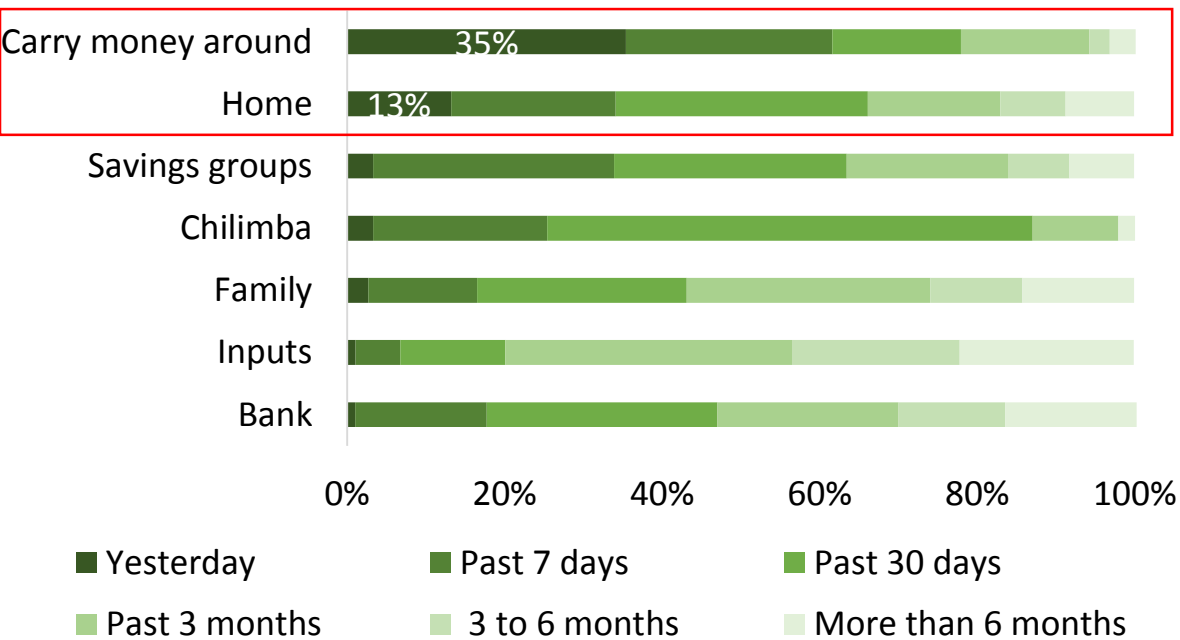
How often do you use the savings instruments?

- Home — 36%
- Carry money around — 32%
- Bank
- Inputs
- Savings groups
- Family
- Chilimba

0% 20% 40% 60% 80% 100%

Legend:
- More than once a month
- Once a month
- Less than once a month
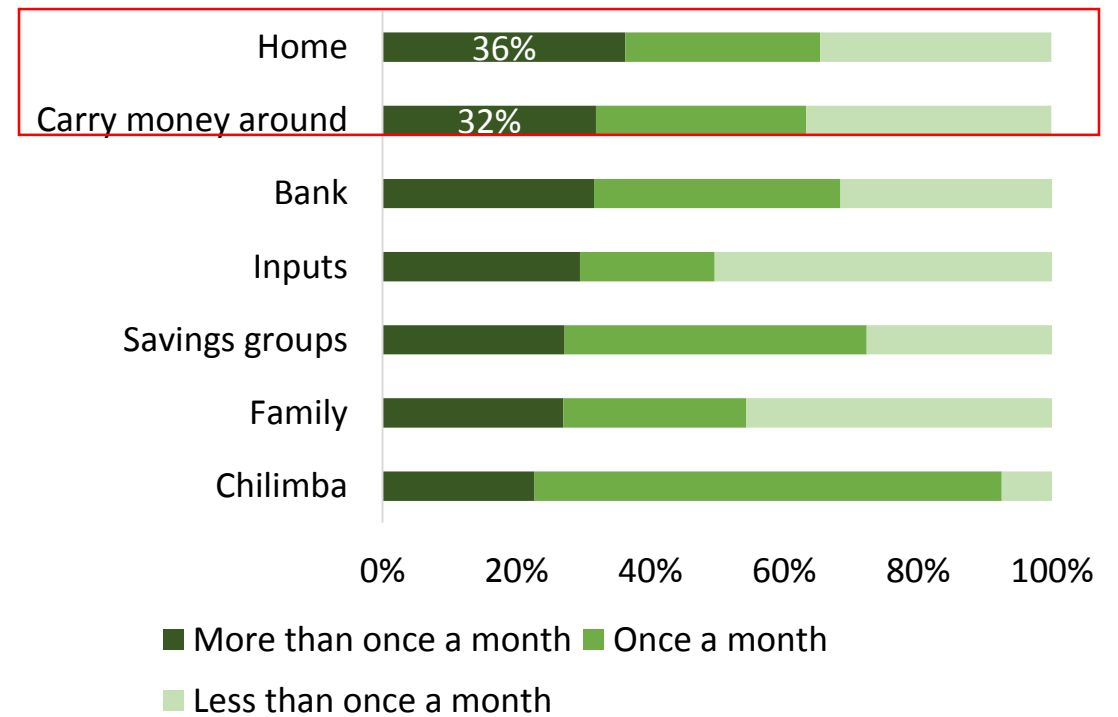
Farmers mainly save for times of deficit and unexpected emergencies

Savings purpose (% of farmers that saved)

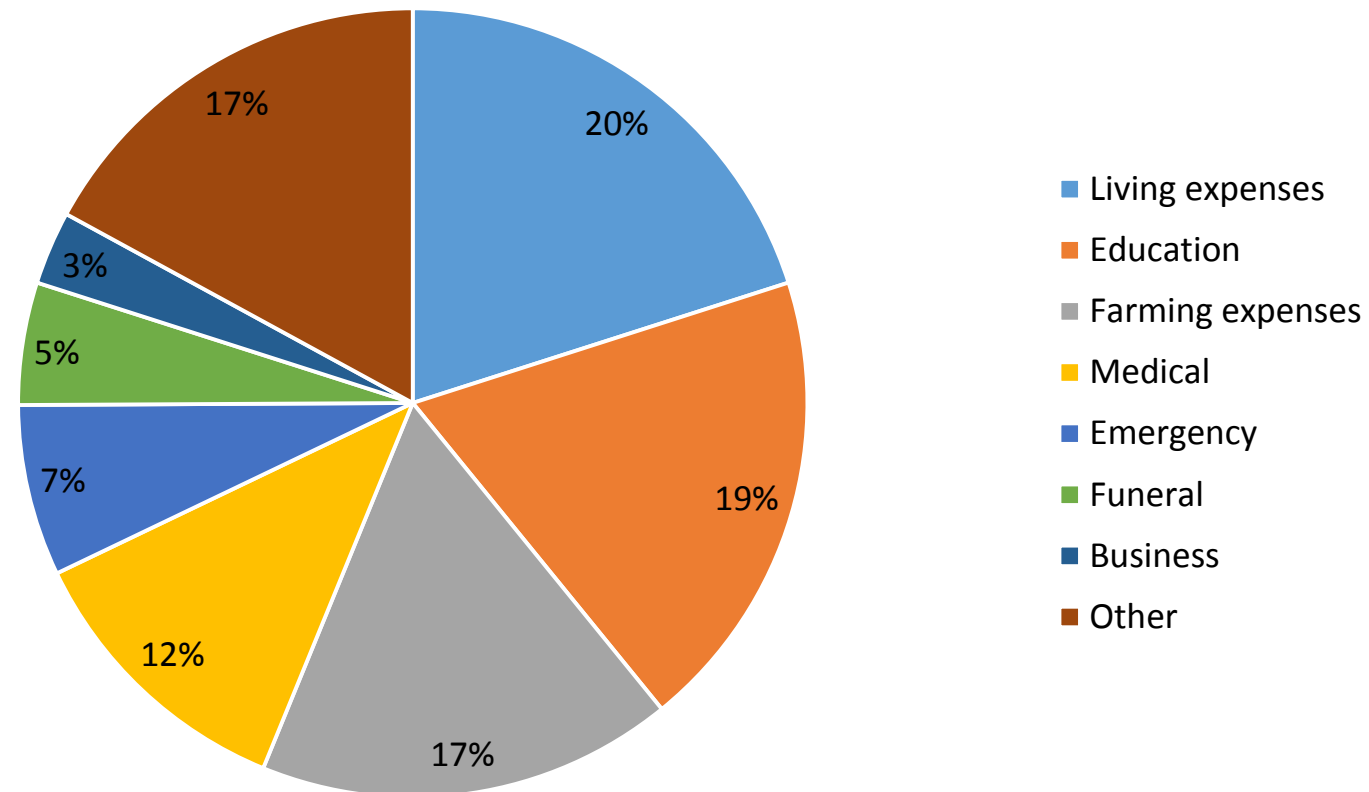- Living expenses for when there is not enough money — 35%
- Emergency other than medical — 25%
- Farming expenses — 13%
- Education — 10%
- Medical expenses — 3%
- Buying or building a house — 2%
- Other — 12%

Women are more likely to report saving for times of deficit and unexpected emergencies compared to men

Savings pupose (% of farmers)

Category	Living expenses for when not enough money	Emergency other than medical	Farming expenses	Education	Medical expenses	Other
Non household head male	30%	26%	21%	11%		13%
Household head and male	32%	25%	14%	10%	4%	15%
Non household head female	38%	25%	11%	11%	3%	13%
Household head and female	42%	21%	14%	10%	5%	9%

Legend:
- Living expenses for when not enough money
- Emergency other than medical
- Farming expenses
- Education
- Medical expenses
- Other

Farmers mainly borrow to pay for living and education expenses

Borrowing purpose (% of farmers that borrowed)

Legend:
- Living expenses
- Education
- Farming expenses
- Medical
- Emergency
- Funeral
- Business
- Other

Pie chart values: 20%, 19%, 17%, 12%, 7%, 5%, 3%, 17%

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45

While farmers cite banks as the most important instrument to manage finances on a daily basis (47%), only 13% of farmers actually use a bank to help manage their money

What is the most important instrument to help manage finances on a daily basis? (% of farmers)
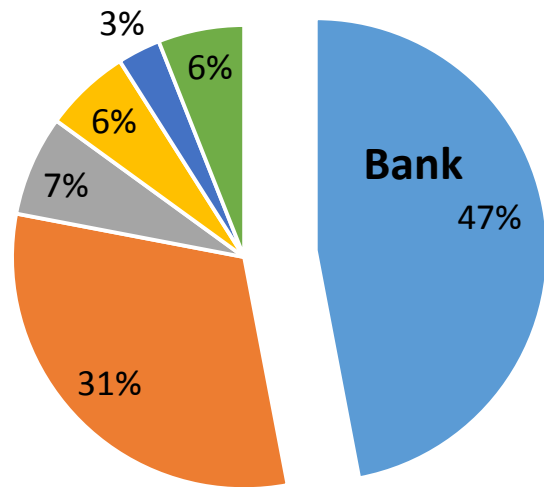
Legend:
- ■ Savings account at a bank
- ■ None
- ■ Chilimba
- ■ Savings in a savings group
- ■ Loan account at a bank
- ■ Other

Pie chart values: Bank 47%, 31%, 7%, 6%, 3%, 6%

Which of the following do you use to help manage your money? (% of farmers)

Category	%
Family or friends	60%
Bank	13%
Savings group	9%
Someone in the community	5%
Chilimba	5%
Money lender	3%
SAACO	3%
None	19%
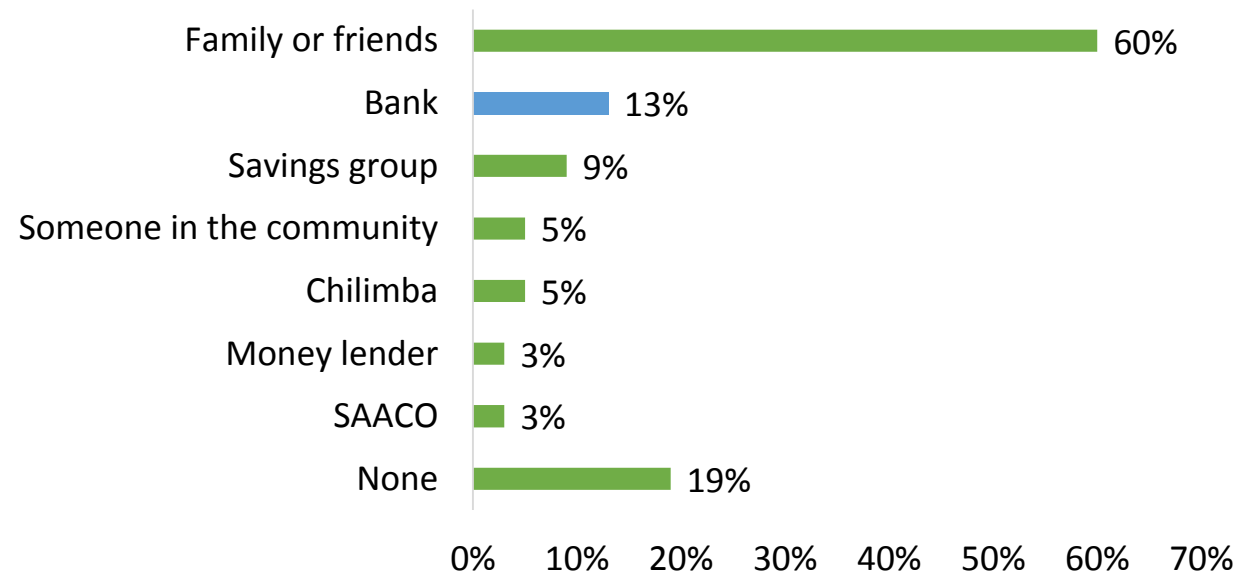
Nearly all farmers above 25 years old reported being involved in household financial decisions

Percent of farmers involved in household financial decisions by age group
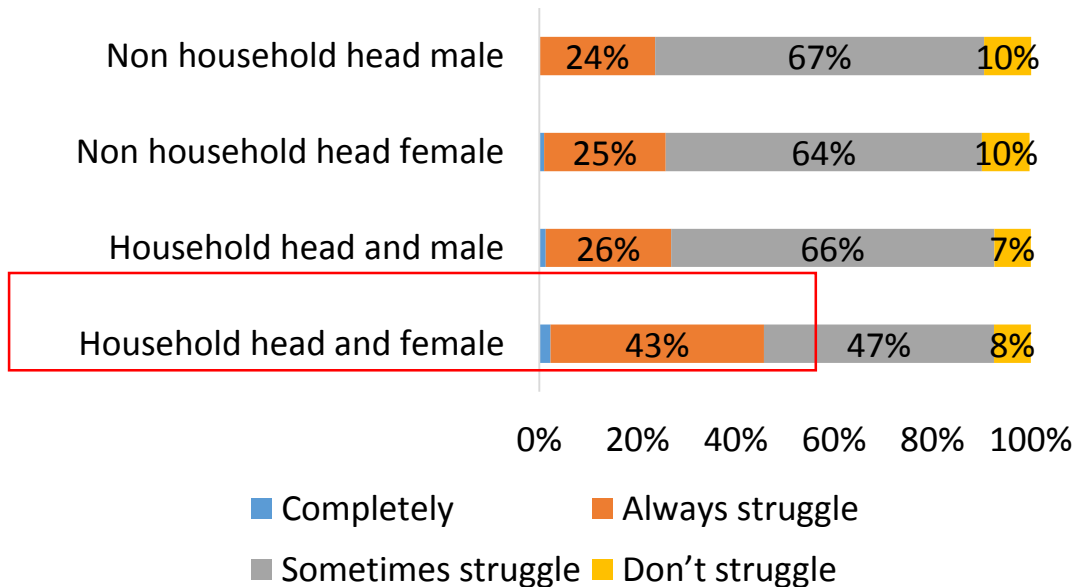
Source: 2015 Finscope
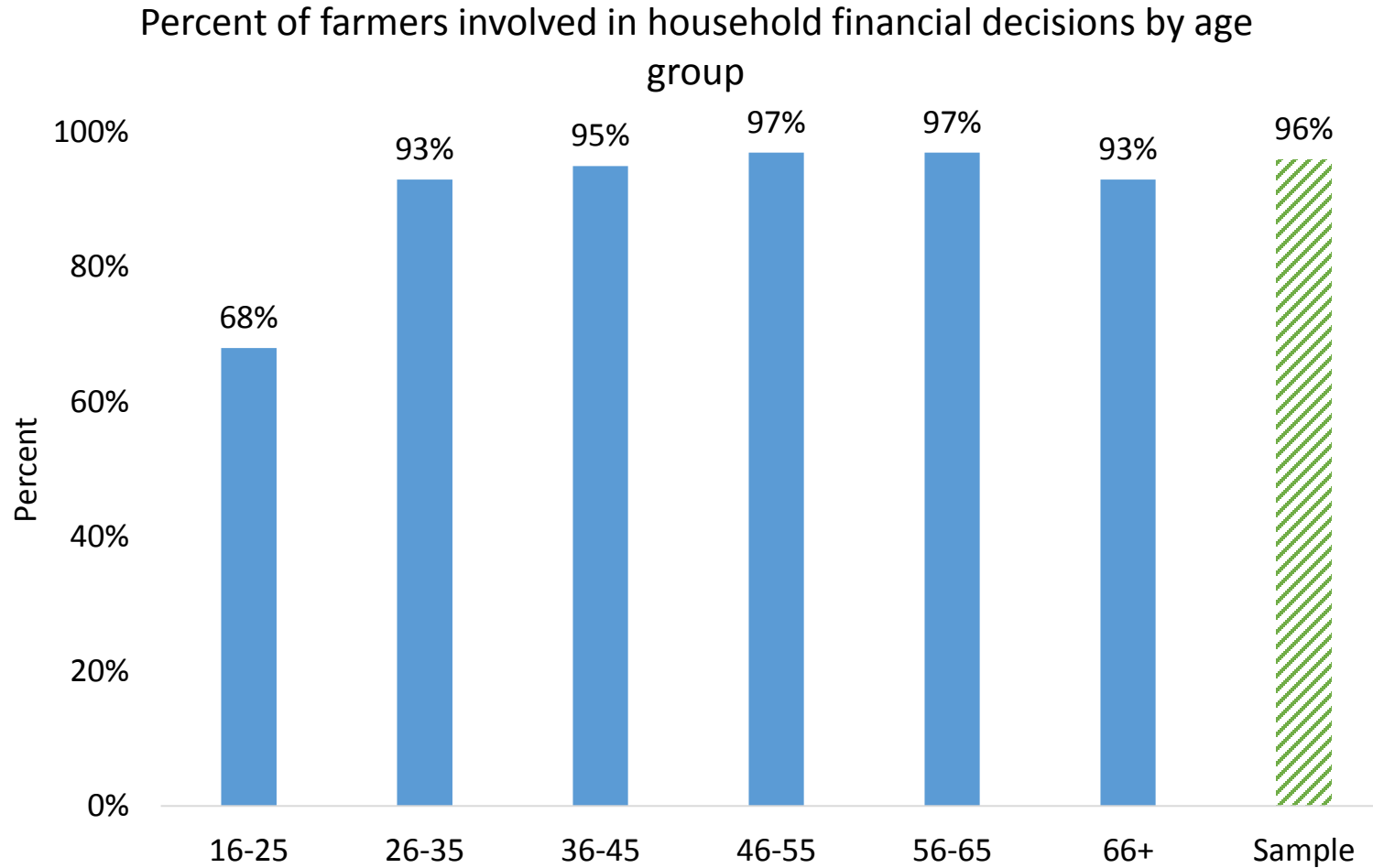
Women are more likely than men to report not knowing where to go or not having anyone to ask when they need financial advice

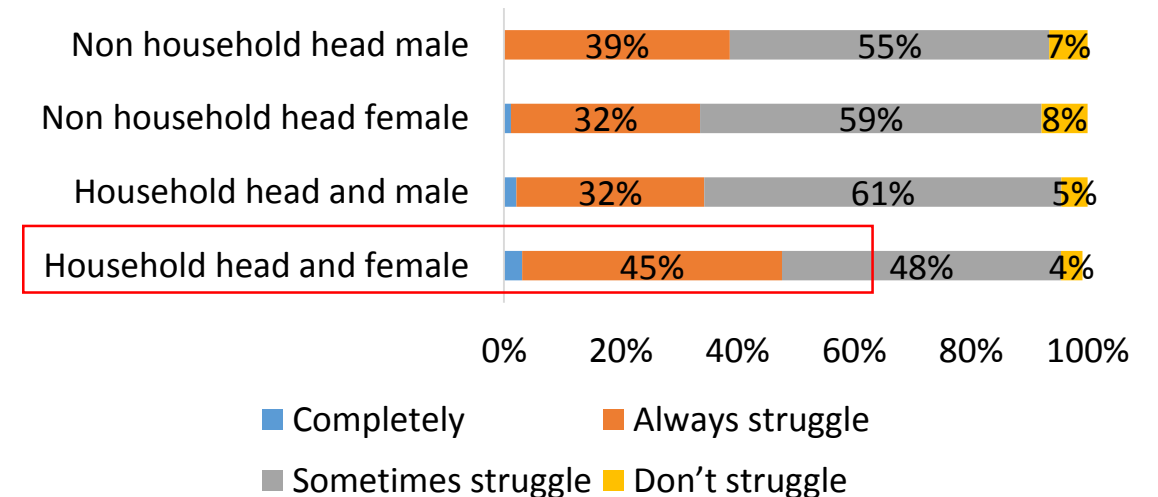## Who would you go to if you needed financial advice?

Category	Nobody / Don't know	Family or friend	Household member	Bank	Farm or business association	Other
Non household head male	13%	47%	12%	13%	1%	14%
Non household head female	30%	34%	17%	6%	4%	9%
Household head and male	27%	32%	10%	12%	6%	13%
Household head and female	47%	32%	6%	3%	3%	9%

Legend: ■ Nobody / Don't know ■ Family or friend ■ Household member ■ Bank ■ Farm or business association ■ Other
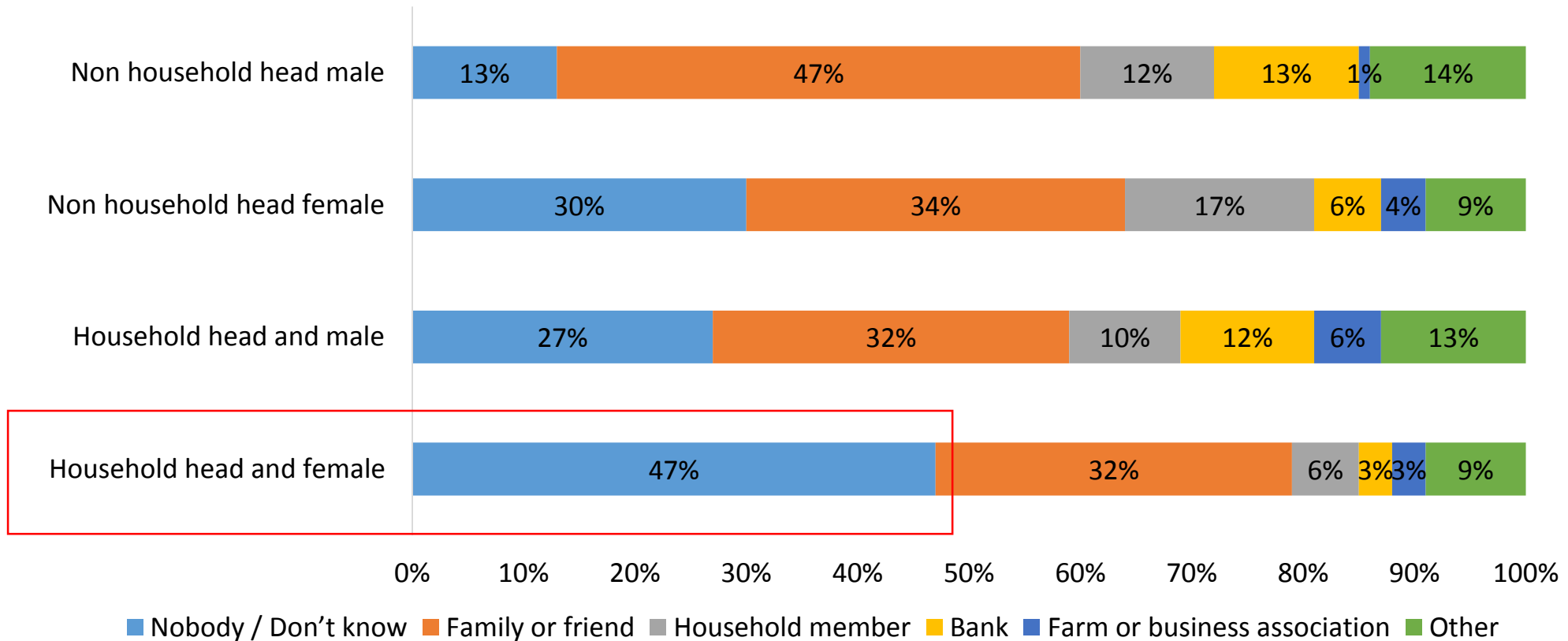
Females heads of household are more likely to report struggling to pay for regular and unexpected expenses

## How often do you struggle paying regular expenses?

Non household head male	24% — 67% — 10%
Non household head female	25% — 64% — 10%
Household head and male	26% — 66% — 7%
Household head and female	43% — 47% — 8%

0% 20% 40% 60% 80% 100%

■ Completely ■ Always struggle
■ Sometimes struggle ■ Don't struggle

How often do you struggle paying unexpected expenses?

Non household head male	39% — 55% — 7%
Non household head female	32% — 59% — 8%
Household head and male	32% — 61% — 5%
Household head and female	45% — 48% — 4%

0% 20% 40% 60% 80% 100%

■ Completely ■ Always struggle
■ Sometimes struggle ■ Don't struggle

Zambians that report farming or casual labor as their main income source are least likely to have received remittances in the past 12 months

Percent of Zambians that received remittances in the past 12 months by main income source

Source: 2015 Finscope
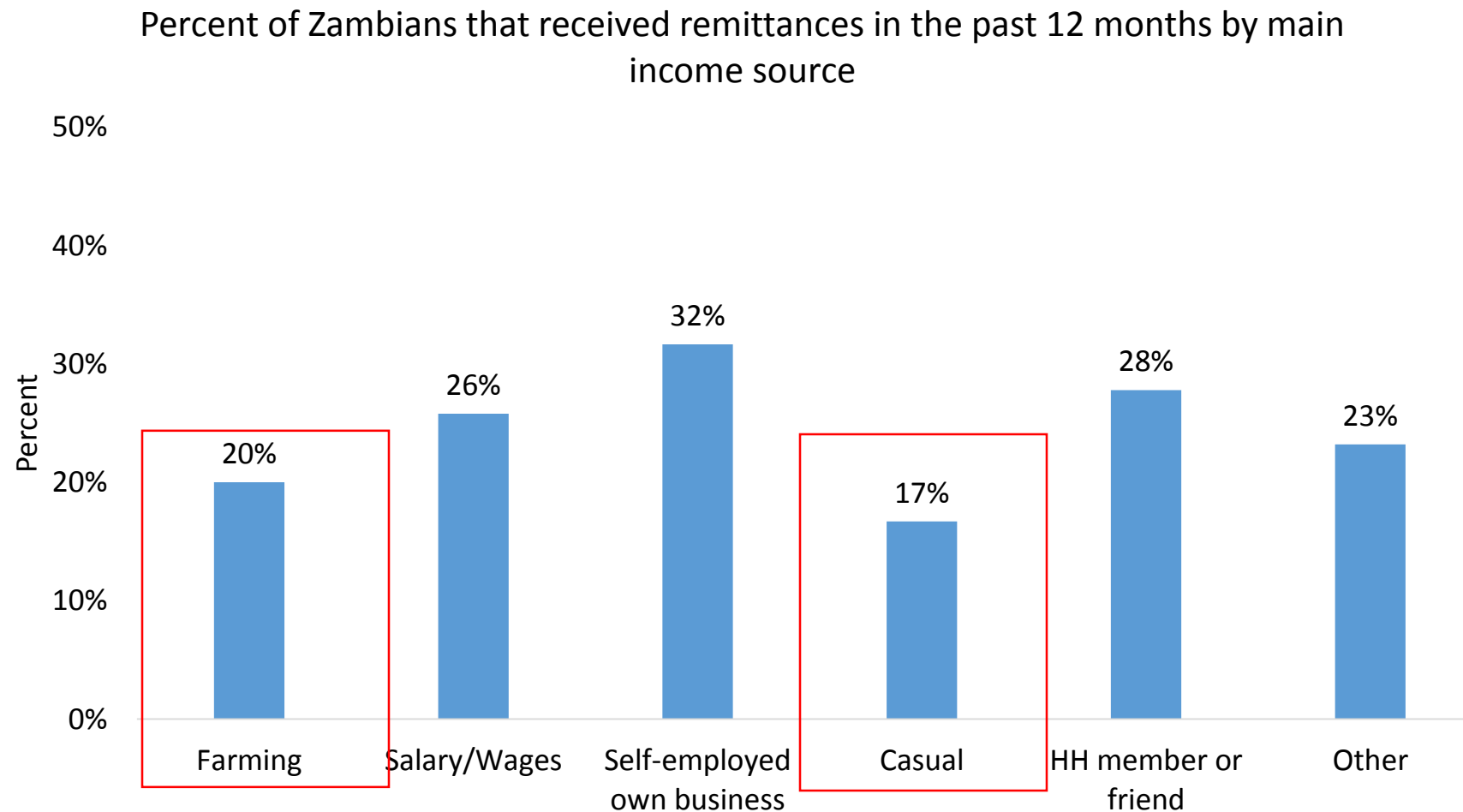
Less than a quarter of farmers received remittances across all provinces

Percent of farmers that received remittances in the past 12 months by province
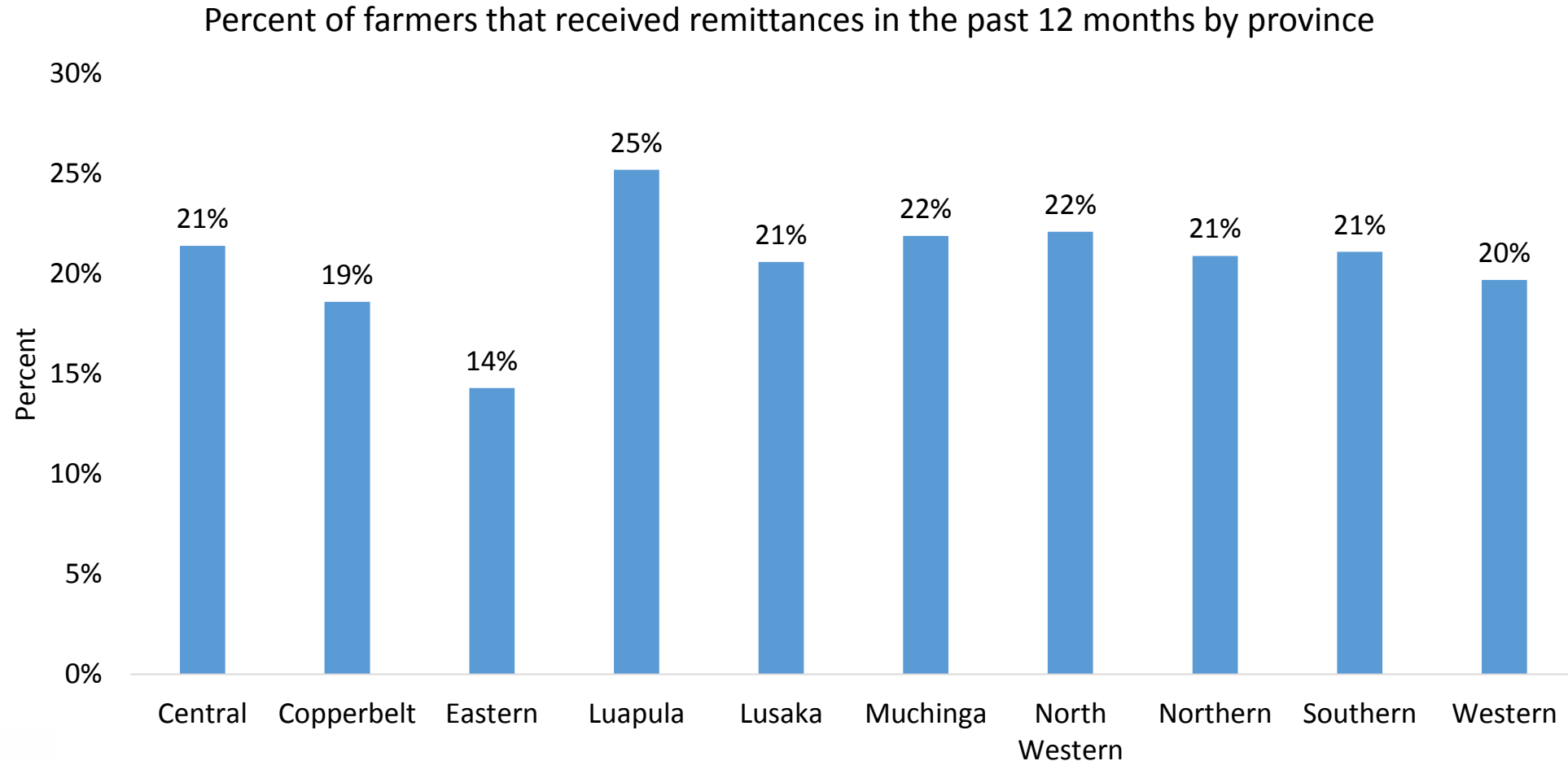
Urban farmers are more likely to have received remittances in the past 12 months

Percent of farmers that received remittances in the past 12 months

Rural Sample	17%
Rural Farmers	18%
Urban Sample	32%
Urban Farmers	34%
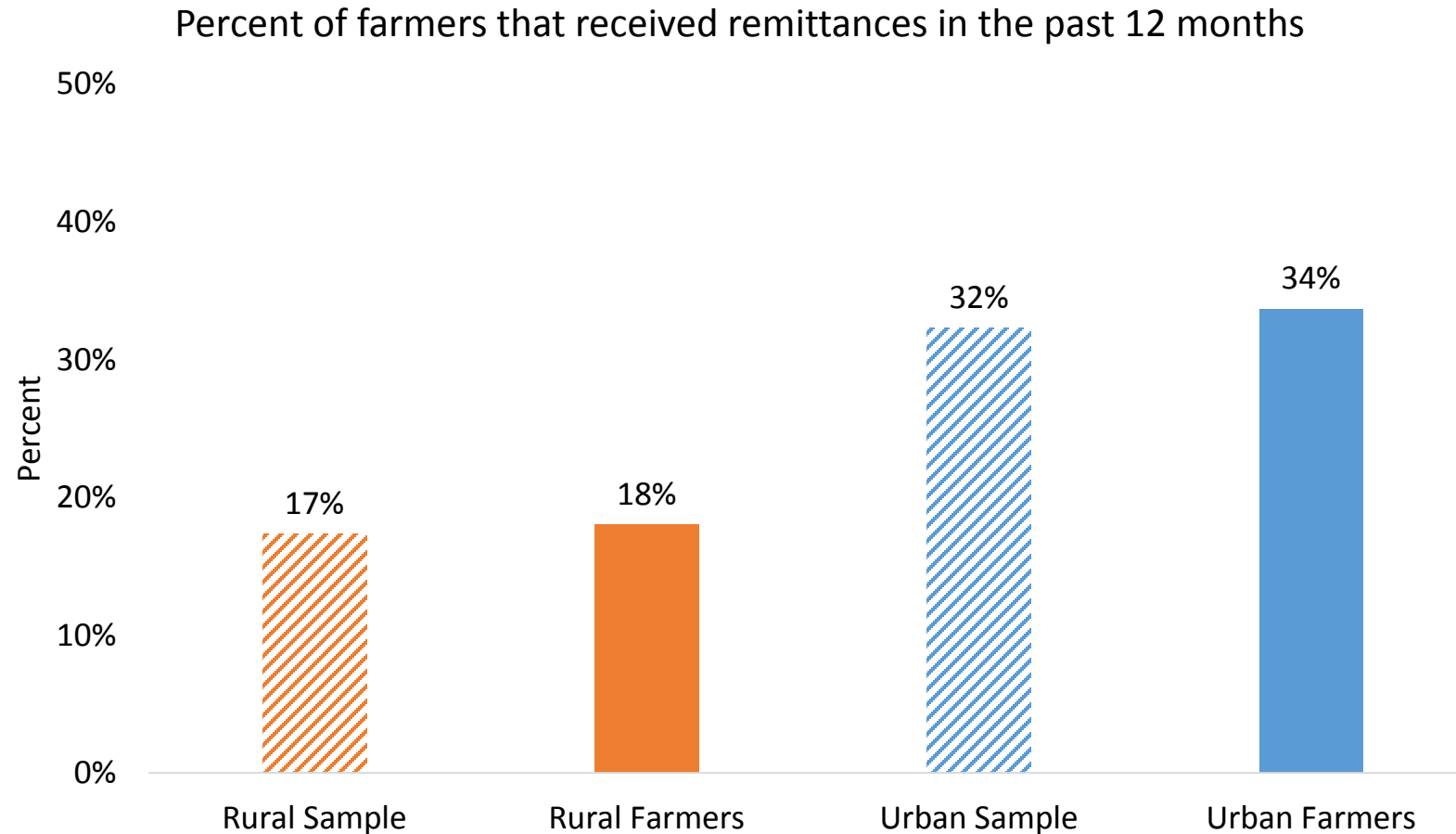
Farmers receive remittances intermittently

Remittance frequency (% of famers)
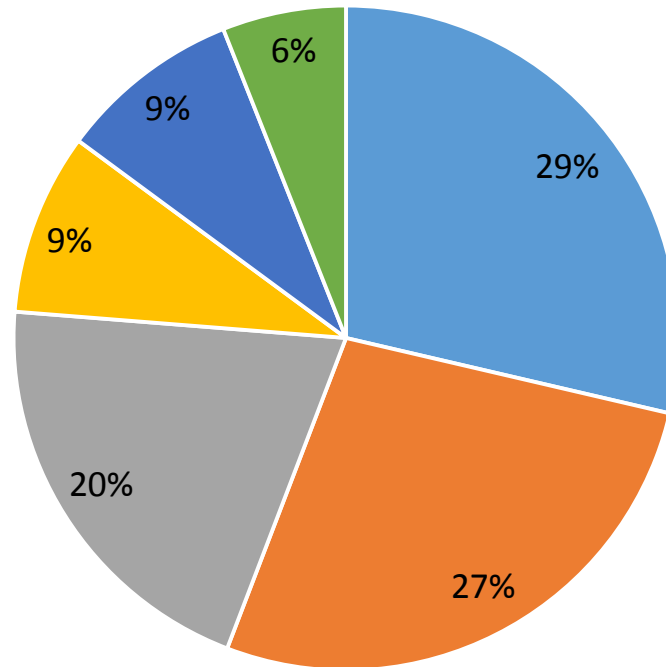
- When you ask / in an emergency: 29%
- When they can: 27%
- Once a year: 20%
- Several times a year: 9%
- Monthly: 9%
- Other: 6%

Farmers mainly use remittances for food, clothing and farming expenses

Remittance uses by main income source

Source: 2015 Finscope
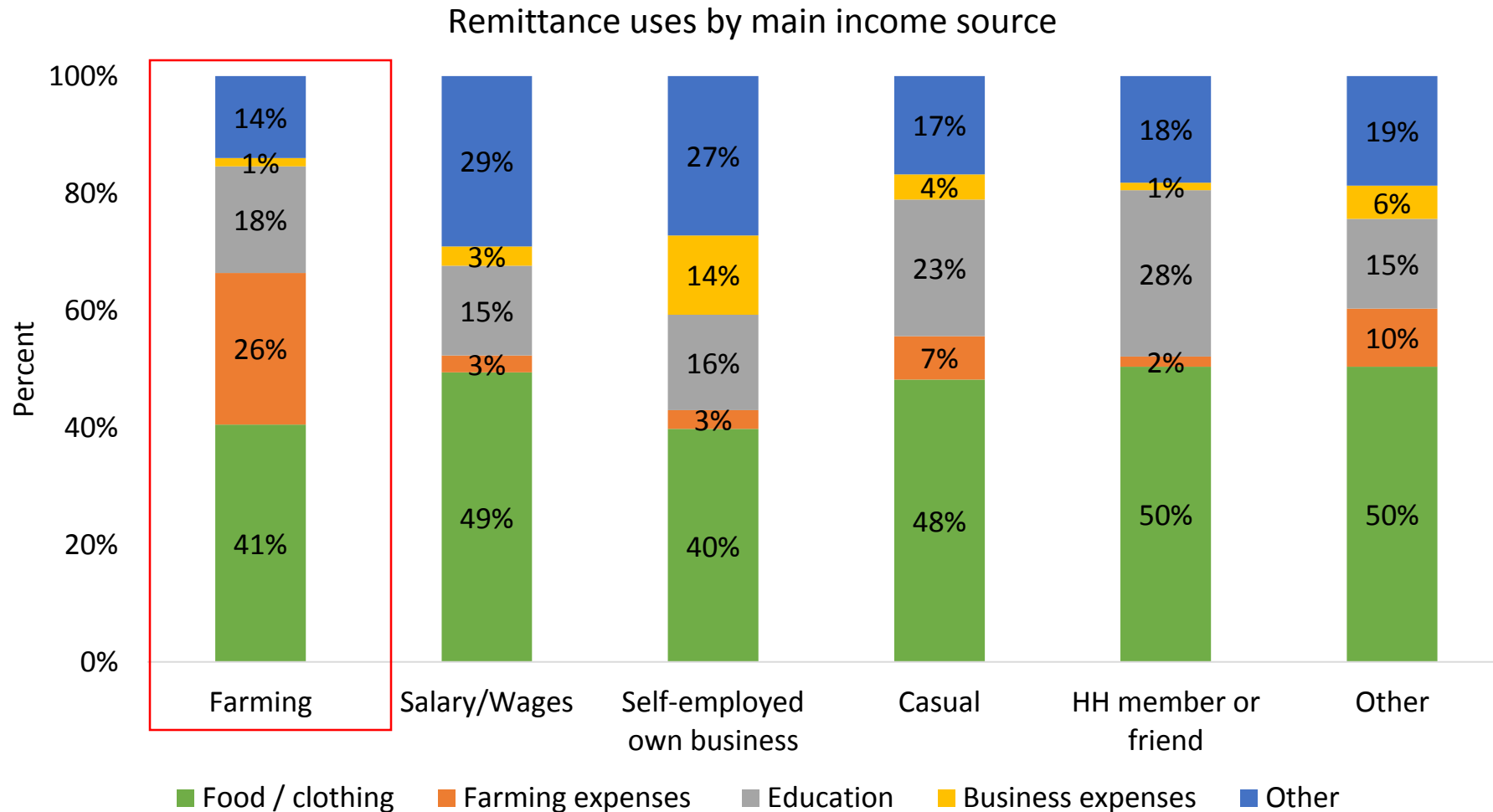
Zambia financial diaries: farmers spend a high share of their income on food

This is money income only and doesn't include consumption of own production.

Figure 10: Share of Weekly Household Expenditures by Livelihood
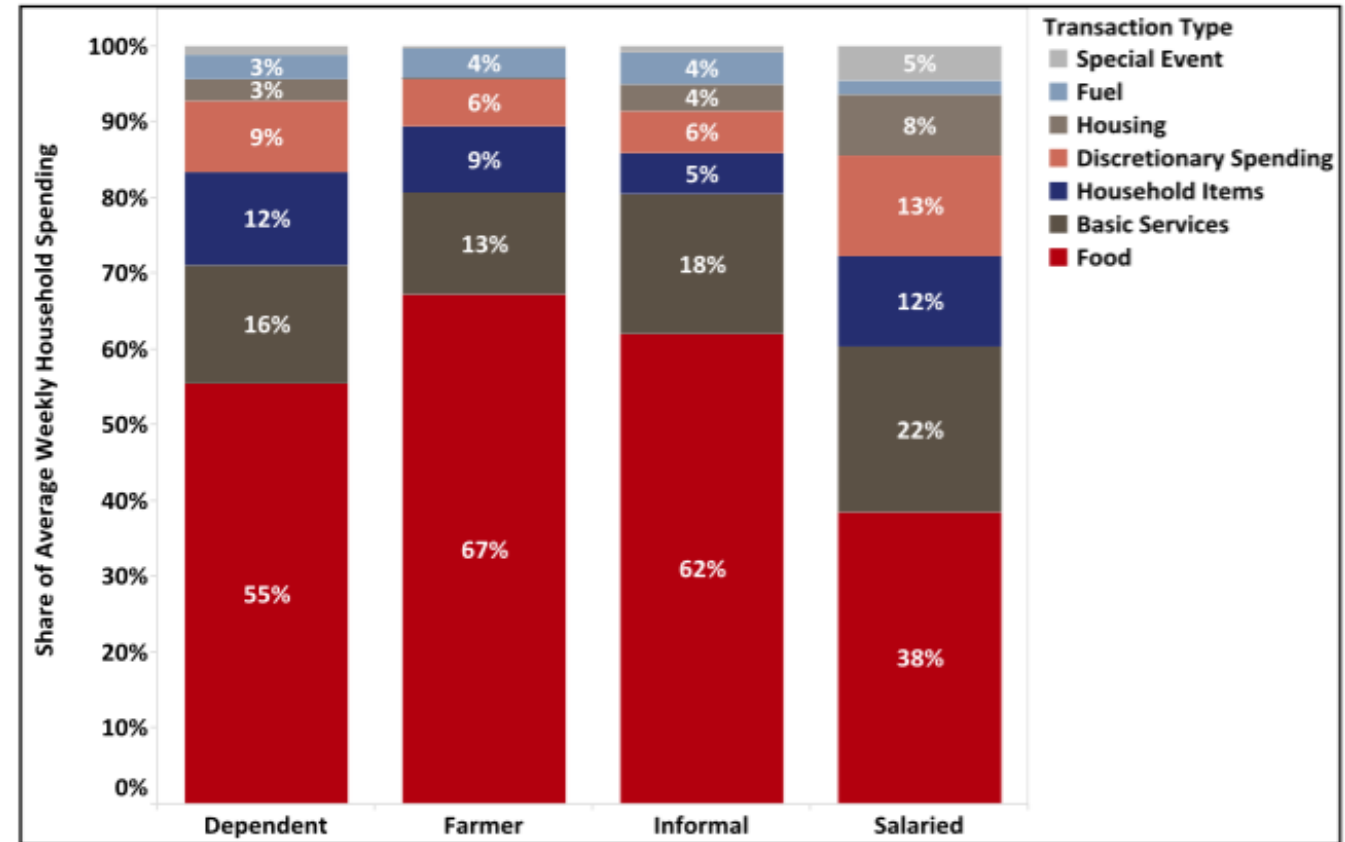
Transaction Type
- Special Event
- Fuel
- Housing
- Discretionary Spending
- Household Items
- Basic Services
- Food

Share of Average Weekly Household Spending

	Dependent	Farmer	Informal	Salaried
Special Event				5%
Fuel	3%	4%	4%	
Housing	3%	6%	4%	8%
Discretionary Spending	9%		6%	13%
Household Items	12%	9%	5%	12%
Basic Services	16%	13%	18%	22%
Food	55%	67%	62%	38%

Segmentation

Farmers can be segmented into 4 groups based on socio-demographic patterns from within the FinScope data

| Traditional Men (n=356) | St_____s (n=369) | Rising 30s (n=298) | Market gardeners (n=618) |

Source: 2015 Finscope

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	Traditional male-headed households (n=356)	Struggling families (n=369)	Rising 30s (n=298)	Market gardeners (n=618)
Demographics	**Demographics** • 100% male headed household • Similar demographics to the struggling families, except relatively smaller family size (average of 4.9)	**Demographics:** • Very poor – PPI score of 1.1 i.e., poorest across all segments • Large households (average family size of 9)	• Youngest segment (average age of 30 years) • Largest land size (~8.4 acres) • Slightly better off than other segments – PPI score of 2.2 • Better educated	• Primarily female (72%) • Highly unlikely to keep livestock (only 2% do) • Smallest land size (~5.2 acres)
Geographic location	• Primarily found in rural areas (100%) • Majority found in Eastern Province (40%)	• Primarily found in rural areas (99%) • Evenly distributed across all provinces but less likely to be found in Lusaka and Western Provinces (11% and 16%, respectively)	• Primarily found in rural areas (89%) • Majority found in Lusaka (38%)	• Primarily found near to major cities (53% urban) • Majority found in Luapula (41%), Southern (41%), Western (49%)
Level of access to financial services	• Over half totally excluded from formal and informal financial services (51%)	• Over half totally excluded from formal and informal financial services (52%)	• ~40% are using formal financial services • Most likely to have received remittances • Most likely to be within an hour of financial access points, but still majority are more than an hour from services	• ~75% already use formal financial services • Most ikely to be within an hour of financial access points, but still majority are more than an hour from services

58

Source: 2015 Finscope

Lusaka has the largest share of Rising 30s; Western is nearly half market gardeners. Traditional Men are concentrated in Eastern.

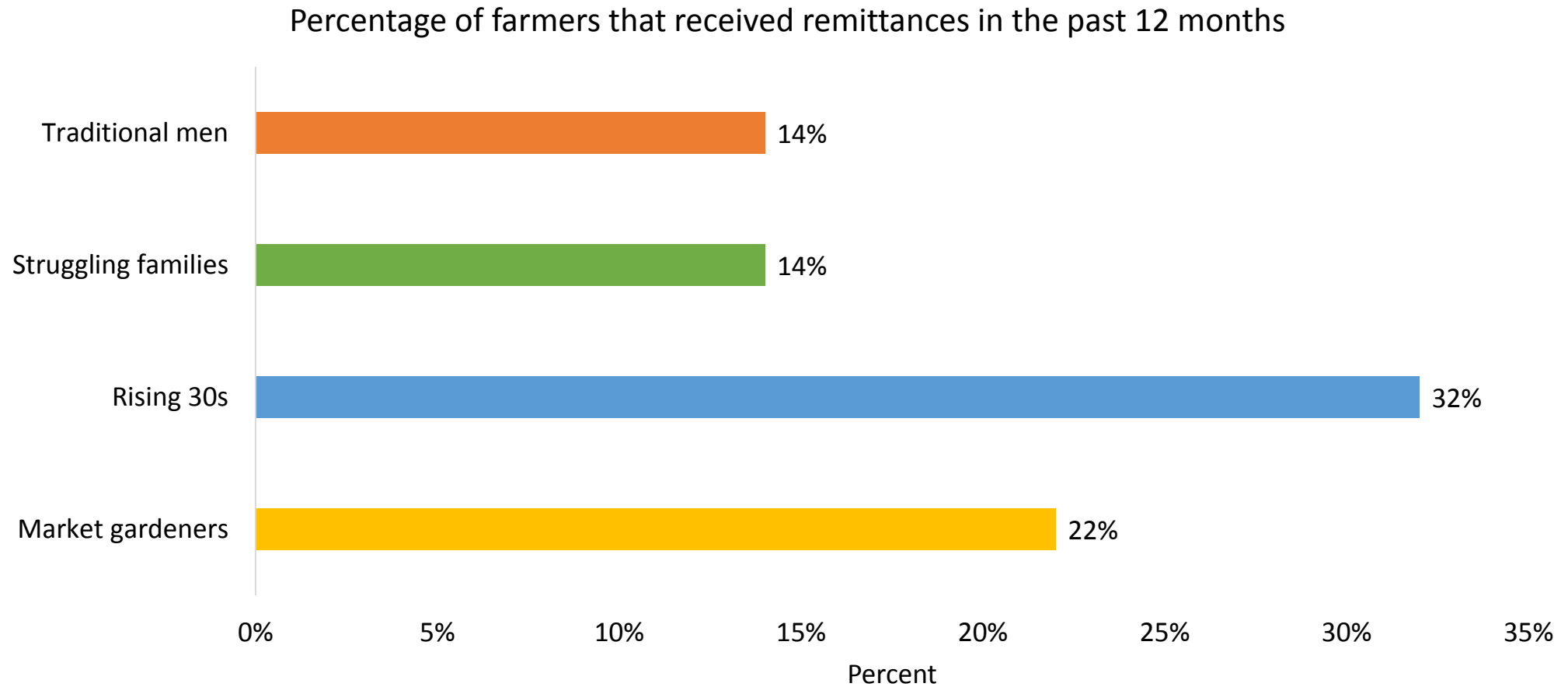| Province	Percentage of farmers living in each province			
	Traditional male-headed HHs	Struggling families	Rising 30s	Market gardeners
Central	22%	22%	21%	36%
Copperbelt	25%	20%	19%	35%
Eastern	40%	25%	18%	17%
Luapula	22%	19%	18%	41%
Lusaka	22%	11%	38%	29%
Muchinga	24%	25%	16%	35%
North Western	21%	28%	20%	32%
Northern	25%	20%	20%	26%
Southern	22%	23%	15%	41%
Western	22%	16%	14%	49%

Source: 2015 Finscope

Each segment has corresponding variables correlated to it

Variable (averages)	Traditional Men	Struggling families	Rising 30s	Market gardeners
Land size (hectares)	7	5.8	8.4	5.2
Livestock	33%	33%	39%	2%
Household head	100%	55%	56%	61%
Female	8%	51%	40%	72%
Household size	4.9	8.8	4.9	4.9
PPI bucket	1.8	1.1	2.2	1.8
Education level	2.8	2.8	4.3	3
Age	47	40	30	49
Rural	100%	99%	89%	47%

Definition of **PPI bucket**: this a variable in the FinScope data which ranges from 1-5, with 5 being in the top 20% of PPI score. So an average PPI bucket of 1.1 for *Struggling Families* can be seen as the majority of farmers in this segment falling in the bottom 20% of PPI score, while an average PPI bucket of 2.2 for *Rising 30s* can be seen as the majority of farmers in this segment falling in the 21-60% of PPI scores.

Rising 30s farmers are more likely to have received remittances compared to other segments

Percentage of farmers that received remittances in the past 12 months

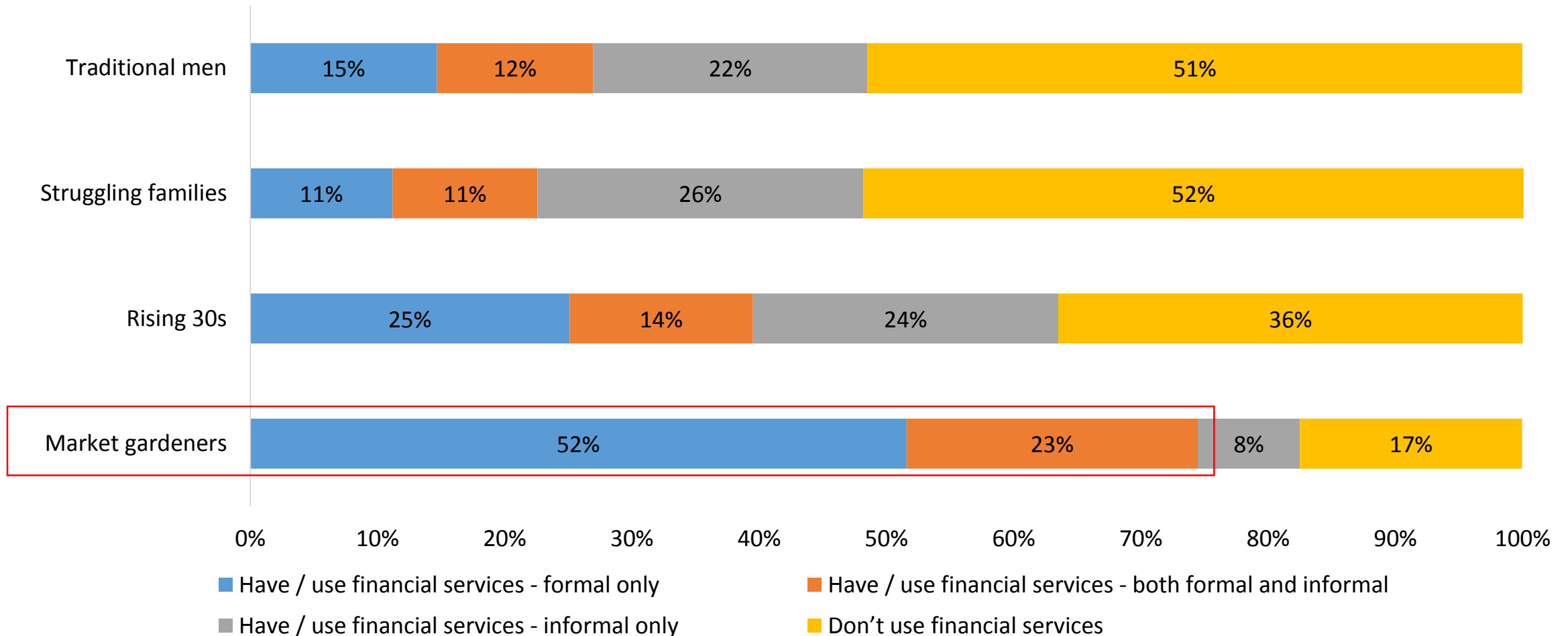| Segment	Percent
Traditional men	14%
Struggling families	14%
Rising 30s	32%
Market gardeners	22%

Percent

Source: 2015 Finscope

Rising 30s and market gardeners more likely to be within an hour of financial access points, but still 75% of all segments are more than an hour from services

Percentage of farmers within one hour of access points

Legend: Traditional men, Struggling families, Rising 30s, Market gardeners

Access Point	Traditional men	Struggling families	Rising 30s	Market gardeners
Bank branch or ATM	19%	13%	25%	25%
MFI	7%	4%	15%	12%
Mobile money agent	10%	8%	20%	17%
Bank agent	11%	10%	17%	17%

Source: 2015 Finscope
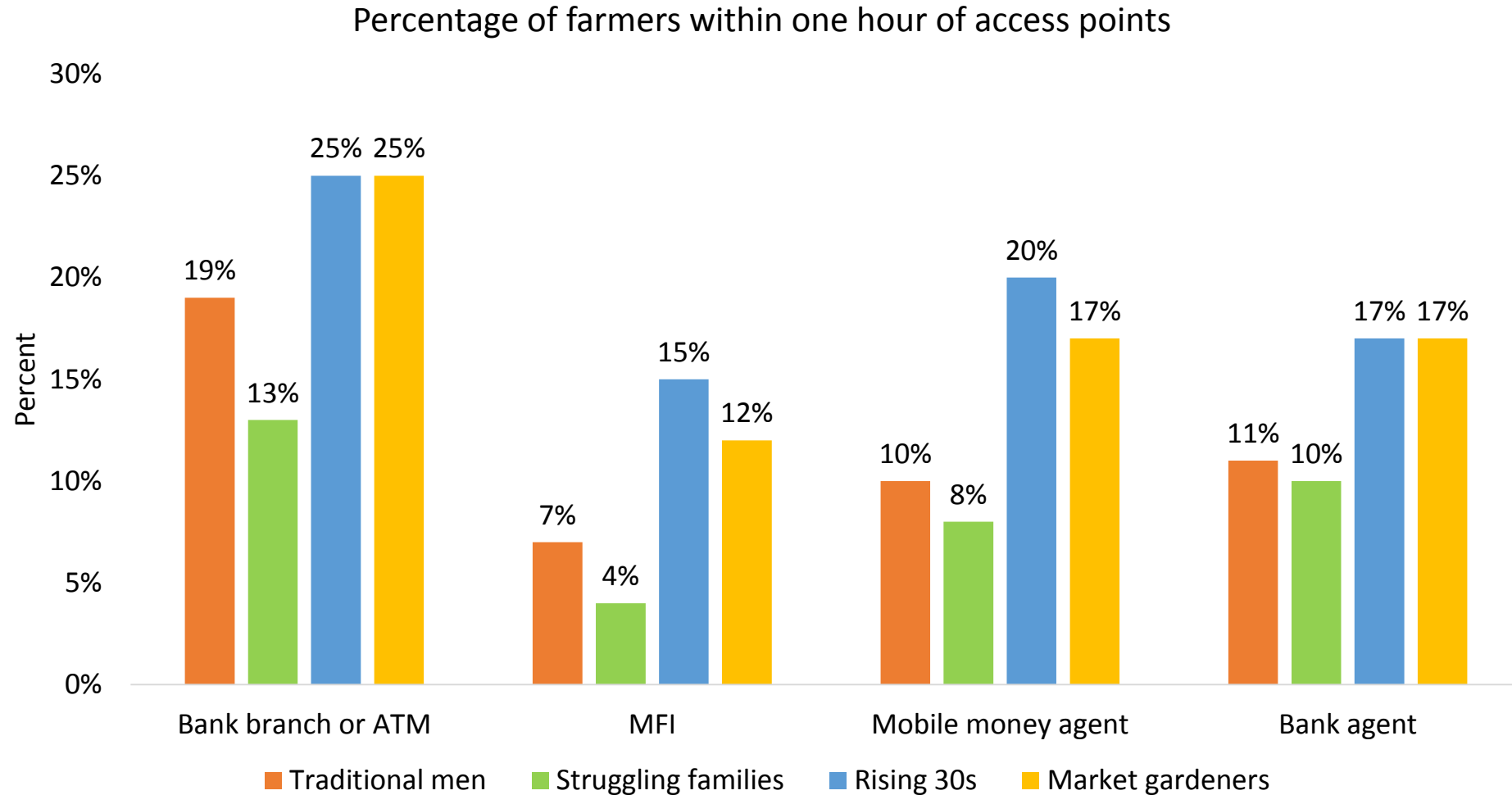
Market gardener farmers are most likely to use formal financial services with 75% formally included

Famers' financial inclusion strands by segment

Legend:
- ■ Have / use financial services - formal only
- ■ Have / use financial services - both formal and informal
- ■ Have / use financial services - informal only
- ■ Don't use financial services

| Segment	Formal only	Both formal and informal	Informal only	Don't use
Traditional men	15%	12%	22%	51%
Struggling families	11%	11%	26%	52%
Rising 30s	25%	14%	24%	36%
Market gardeners	52%	23%	8%	17%

Considerations for Strategic Focus

- Farmers who live in districts that have a main city are more likely to be better off - suggests that farmers have greater access to markets in these districts and diversity of income sources

- The data indicates anyone interested in supporting digital finance needs to work with farmers who are reasonably close to markets adjacent or close to main district cities in a country as vast as Zambia. The Last Mile in Zambia is the Last 500 miles!

- The secondary analysis of value chains should help us identify what the value chains are predominantly in these districts.

Targeting

Eastern and Northern provinces have the highest proportion of farmers with both lower PPI scores and higher MMRI scores

Province breakdown of PPI and MMRI
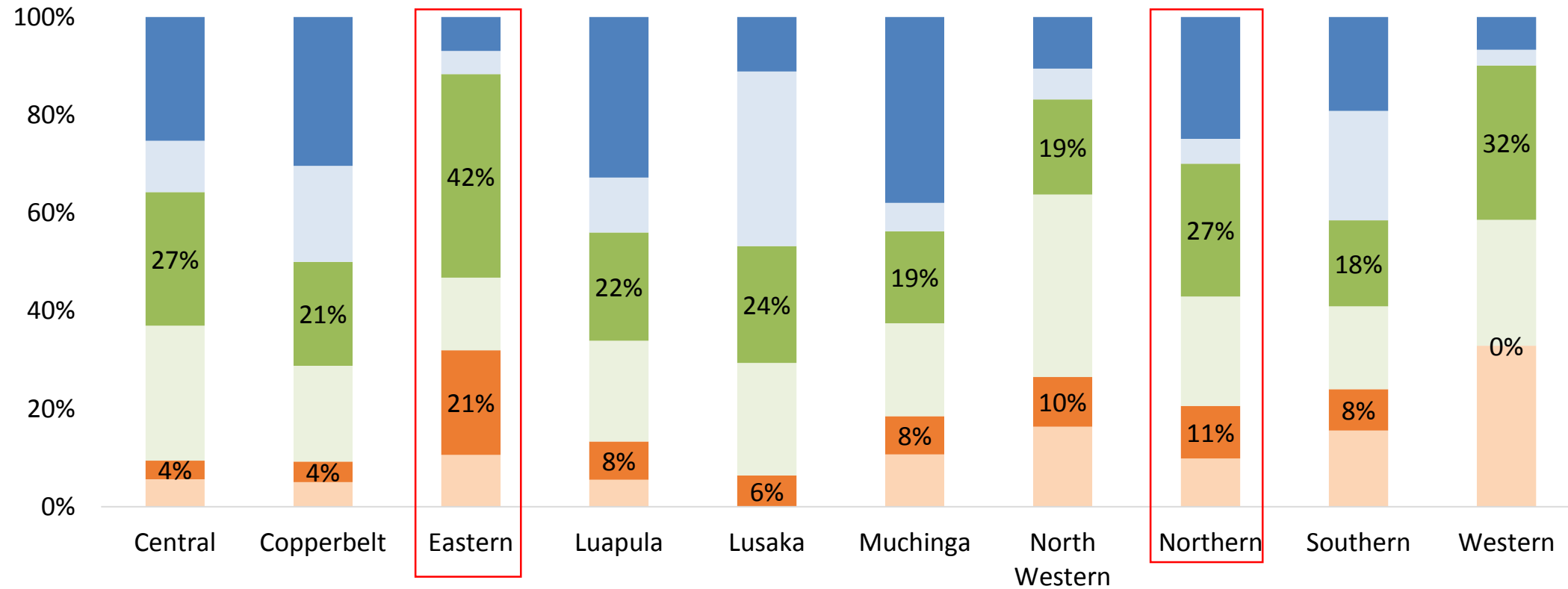
Mobile Money Readiness Index Score (MMRI) is between 0 and 10, the low/high MMRI cutoff is 6

PPI scores less than or equal to 22 are considered low (100% chance below $2.50), between 23 and 41 are considered medium (95% chance below $2.50), greater than 41 are considered high

Legend	Low PPI		Medium PPI		High PPI	
Low MMRI	Low PPI, Low MMRI		Med PPI, Low MMRI		High PPI, Low MMRI	
High MMRI	Low PPI, High MMRI		Med PPI, High MMRI		High PPI, High MMRI	

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Source: 2015 Finscope

Farmers in districts in the Eastern province have high MMRI scores and low PPI scores for potential targeting

Lower PPI scores and higher MMRI scores
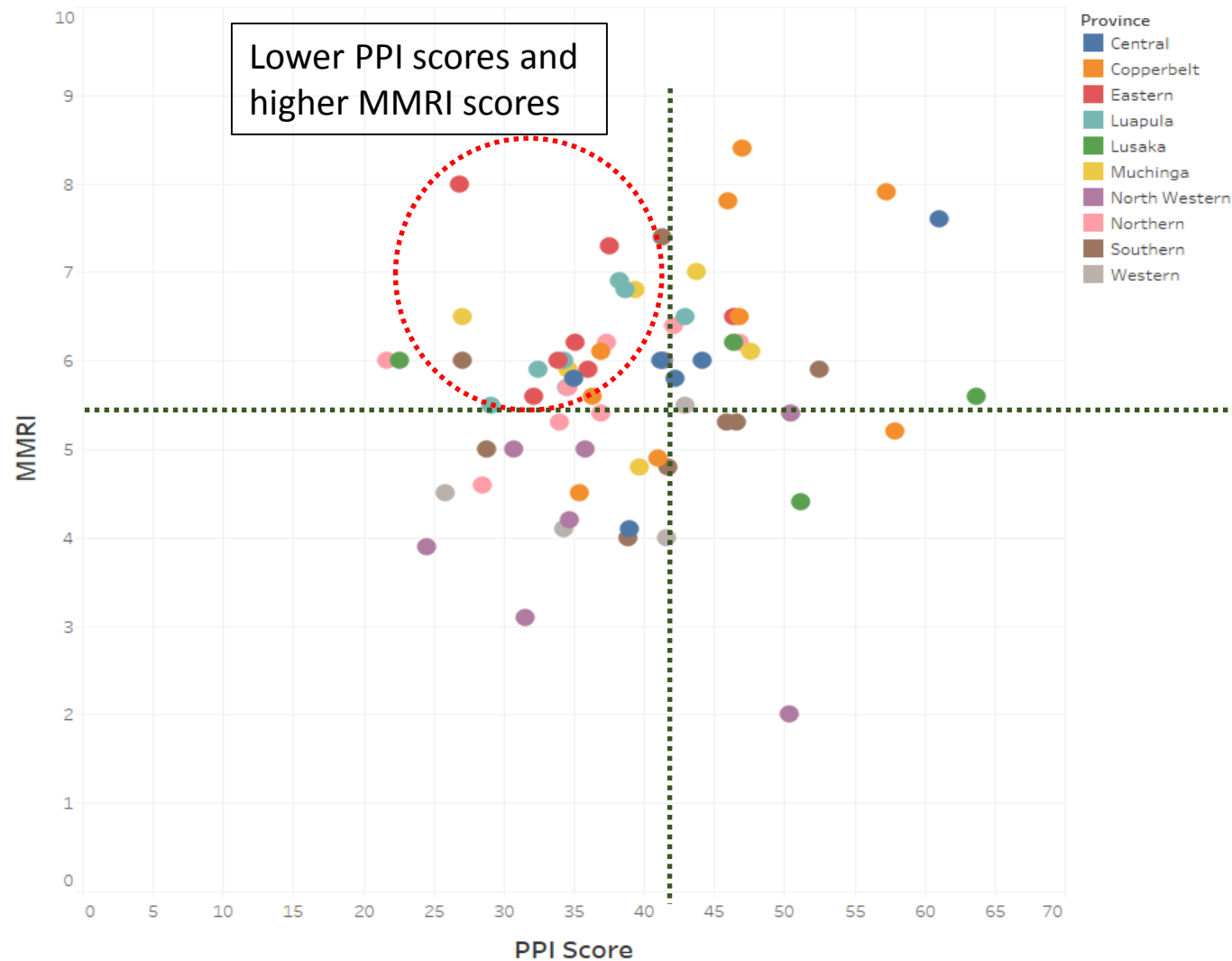
A large number of households across provinces grow groundnuts but seed cotton is mainly focused in the Eastern and Central provinces

Number of households growing each crop
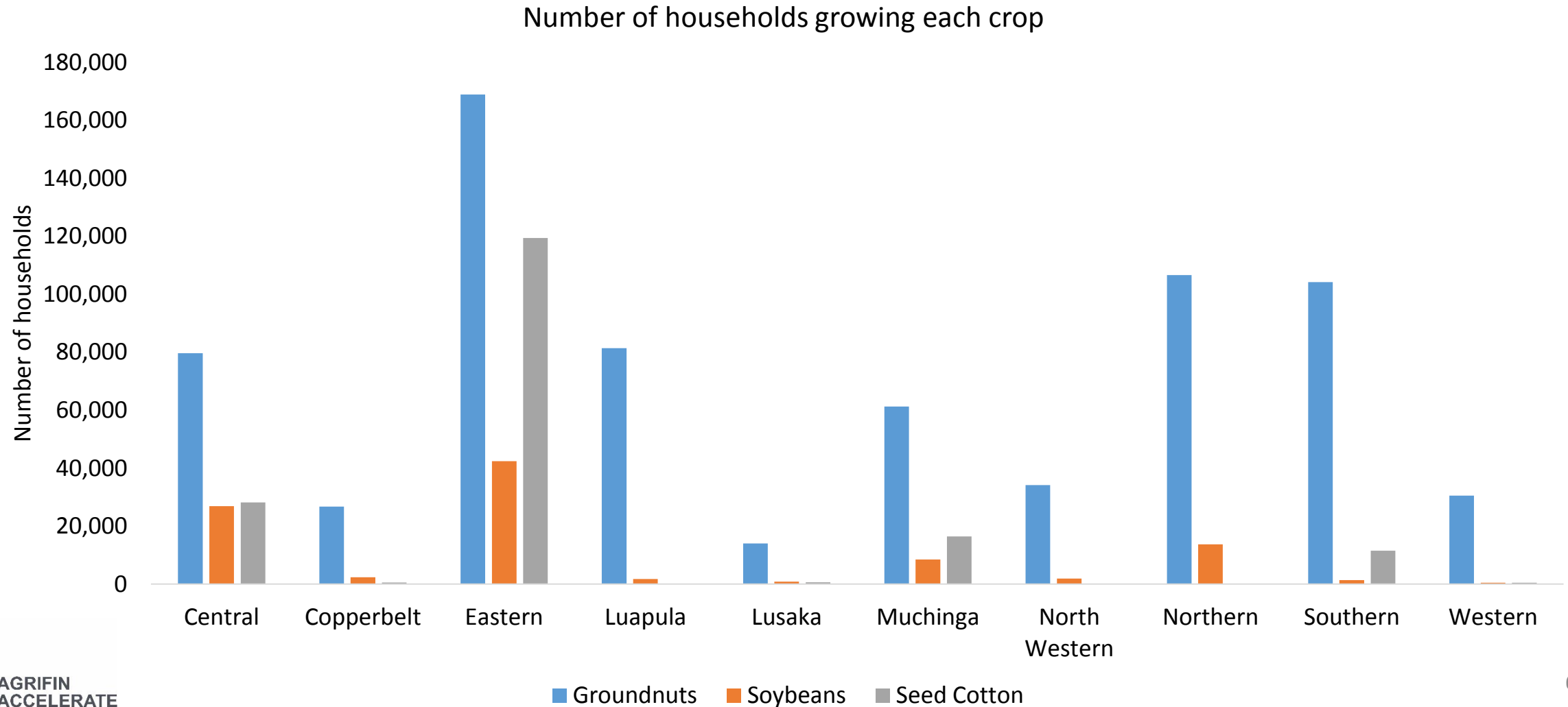
Key characteristics of each target provinces

Province	Key characteristics
Central	Largest land size High production of soybeans and groundnuts
Southern	High production of groundnuts Highest percentage access to mobile phones
Eastern	Low PPI and high MMRI High production of cotton, soybeans and groundnuts Most likely to be "Traditional Men" famers
Lusaka	Lowest percentage of farmers Most likely to be "Rising 30s" farmers Highest PPI score
North Western	Smallest land size Low PPI and low MMRI
Northern	Low PPI and High MMRI High production of groundnuts

Programmatic implications

Target economically active segments

These groups are most likely to take up new financial services since they are already engaged in the commercial market, active in financial services and more likely to live near urban areas where services are more accessible. Nonetheless 75% remain more than an hour from a financial access point.

Mean PPI scores in both groups are around 50, meaning that incomes cluster around the $2.50 per day range. Although wealthier than the other two segments, incomes remain low.

Market Gardeners

- 72% households headed by women.
- However, already 75% banked.

Rising 30s

- Median age of 30
- Starting to use financial services

Focus on localities where the Mobile Money Readiness Index is highest

Digital financial services are most likely to be taken up where the Mobile Money Readiness score is highest. When crossed with the PPI scores, it's possible to identify zones where impact is likely to be highest.

- Eastern Province generally has a concentration of districts with high MMRI scores and low/medium PPI scores. In addition, Eastern Province produces cotton, soybeans and groundnuts which are value chains of interest to AFA.

- Other districts with high MMRI scores and low/medium PPI scores tend to cluster around secondary towns in all the provinces. This reinforces the potential for working with peri-urban farmers where markets and services are more available.