

# Understanding the Demand for Financial, Agricultural, and Digital Solutions from Smallholder Households:

Insights from the Household Survey in Côte d'Ivoire



JANUARY 2018

CÔTE D'IVOIRE

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# BACKGROUND

3



# Financial innovation for smallholder families

This deck is part of a series which explores the research that CGAP and partners have conducted to explore the financial needs and behaviors of smallholder households.

Research was conducted as a basis for guiding financial solution providers, mobile network operators, donors and governments to design, improve, and scale solutions that address the needs of smallholder families.



CÔTE D'IVOIRE



NIGERIA



BANGLADESH



UGANDA



MOZAMBIQUE

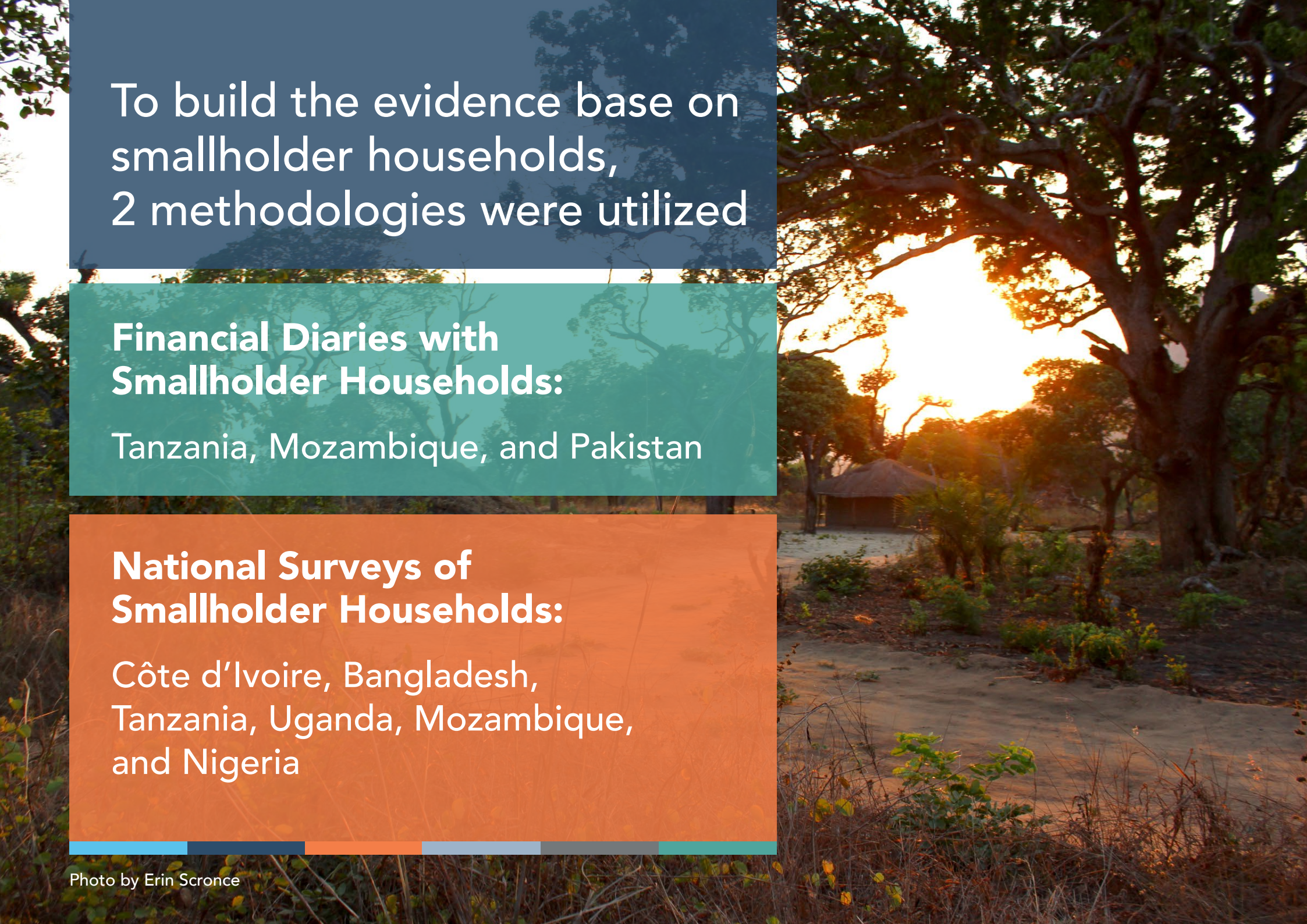


TANZANIA



PAKISTAN





To build the evidence base on  
smallholder households,  
2 methodologies were utilized

**Financial Diaries with  
Smallholder Households:**

Tanzania, Mozambique, and Pakistan

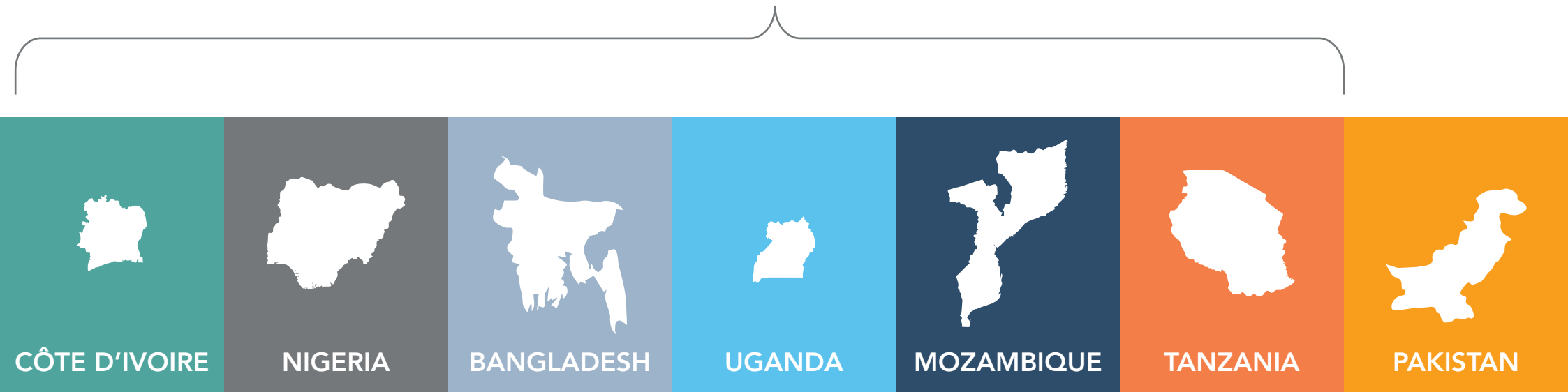
**National Surveys of  
Smallholder Households:**

Côte d'Ivoire, Bangladesh,  
Tanzania, Uganda, Mozambique,  
and Nigeria



# Data sources

Six countries have data from  
National Surveys of Smallholder Households



Mozambique, Tanzania, and Pakistan utilize  
an additional data source: Financial Diaries





Côte d'Ivoire, a democratic republic of 24 million people, is an agricultural fixture in the global economy. It is the world's largest producer and exporter of cocoa beans and cashew nuts, and a top exporter of coffee and palm oil.<sup>1</sup>

Agriculture supports almost 70% of the Ivoirian people and makes up 19% of the country's gross domestic product (GDP).<sup>2</sup> Most agricultural outputs come from smallholder farmers.

But even smallholders in highly structured value chains struggle to access formal financial institutions and their services. They have more recently been the target of initiatives to break down barriers to access.

In 2016, CGAP, in coordination with the Côte d'Ivoire National Institute of Statistics, conducted a nationally-representative survey of smallholder households to explore the financial needs and behaviors of smallholder farmers. These results are meant to inform financial institutions, mobile network operators, donors, and government partners as they design, improve and scale solutions that address the needs of farmers.

This presentation highlights key insights from this research.

Source: 1) The World Factbook, Côte d'Ivoire, Central Intelligence Agency, and World Bank.  
2) Côte d'Ivoire, Fostering Economic Growth, International Monetary Fund, May 2016.



# National Survey of Smallholder Households

## Sample Design

The smallholder household survey in Côte d'Ivoire is a nationally-representative survey with a target sample size of 3,000 smallholder households.

## Sampling Frame

Working closely with the Côte d'Ivoire National Institute of Statistics (Institut National de la Statistique de Côte d'Ivoire), InterMedia conducted a household listing operation in randomly selected 212 enumeration areas (EAs) based on the 2014 population census. The listing operation was implemented by Ipsos Côte d'Ivoire, InterMedia's local field partner.

## Questionnaire Implementation

To capture the complexity of smallholder households, the questionnaire consisted of three parts, with certain questions asked of all relevant individuals in the household, not just one household member.

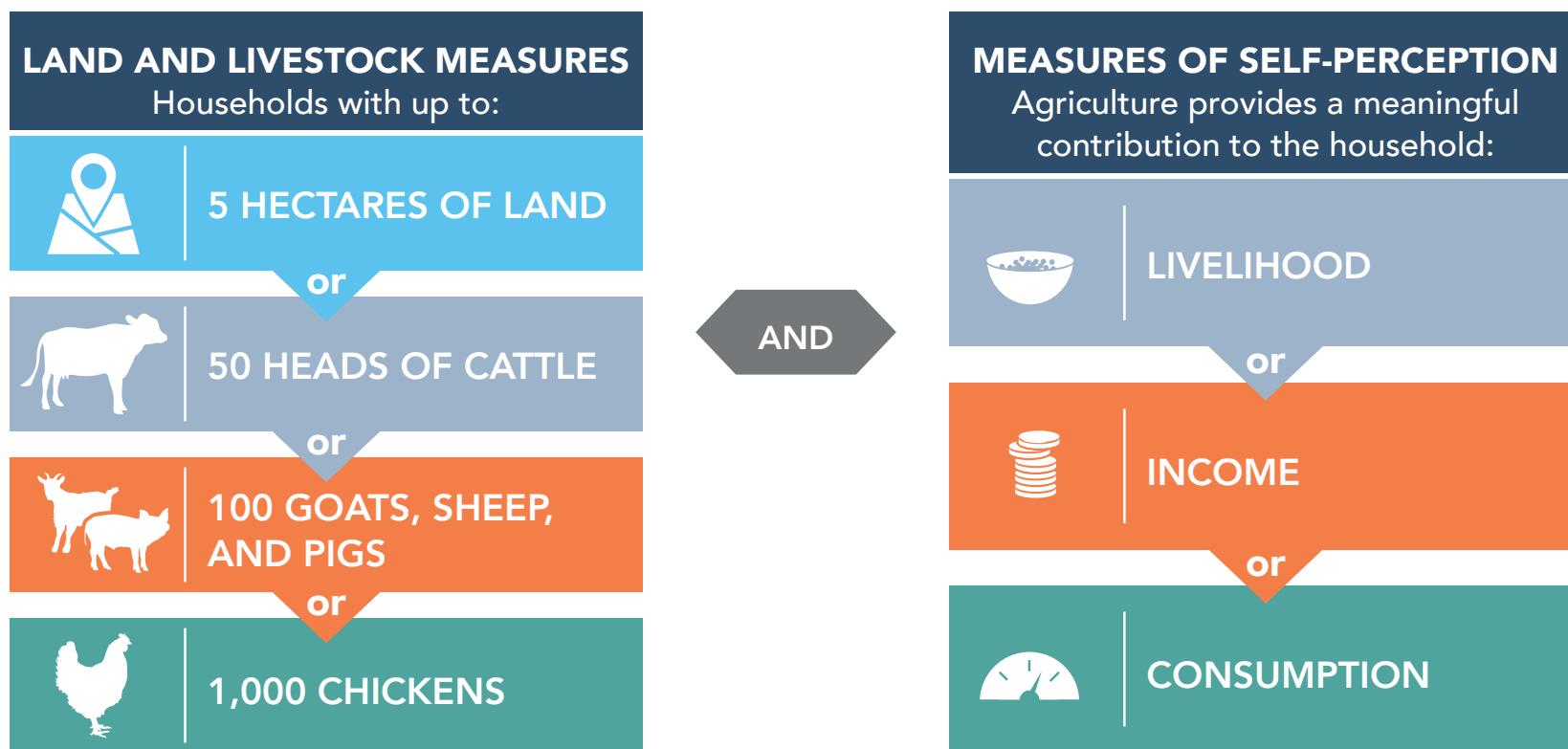
## Data Collection

The questionnaire was translated into French and then pretested and validated to ensure the integrity of the questions and that they were in line with social and cultural customs. Data collection took place from 15 April to 13 May 2016, using computer-assisted data collection tools that regularly yielded data for analysis and quality control to provide timely feedback to field staff. The survey was implemented by Ipsos Côte d'Ivoire, InterMedia's local field partner.

# National Survey of Smallholder Households

*Identification of relevant smallholder households to sample*

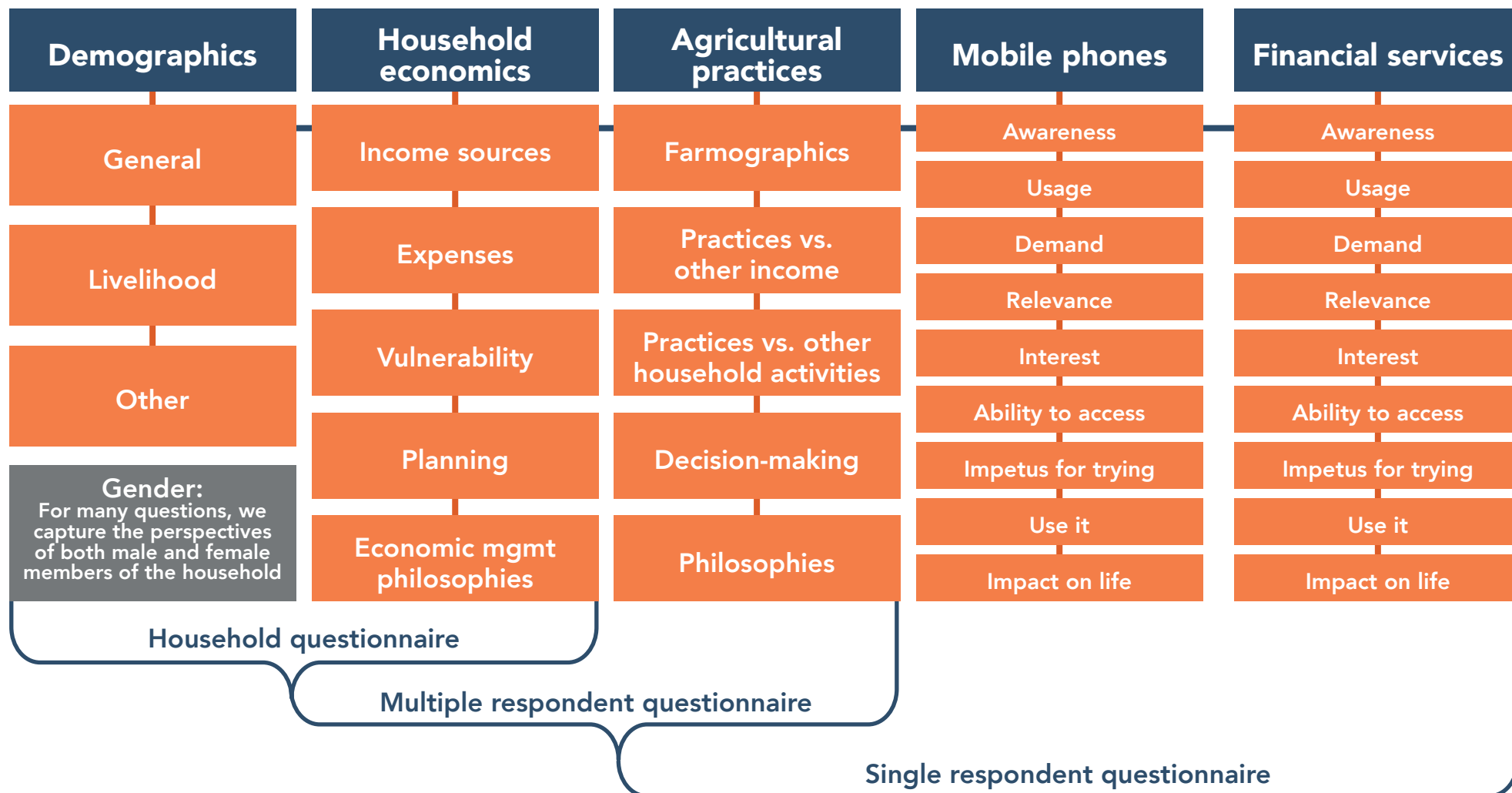
Listing criteria for the national surveys of smallholder households



CGAP conducted national surveys of smallholder households in Bangladesh, Uganda, Mozambique, Côte d'Ivoire, Nigeria, and Tanzania. Care was taken to use an approach in the listing exercise that would encompass the wide variety of smallholder families across all 6 countries.

# National Survey of Smallholder Households

Three questionnaires to capture household information and perspectives







## WHY IT MATTERS

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# Smallholder agriculture in Côte d'Ivoire

Smallholder farmers are the lifeblood of Côte d'Ivoire but they appear largely neglected by formal financial institutions. This results in a rural economy based on transactions in cash.

Agriculture in Côte d'Ivoire represents\*:

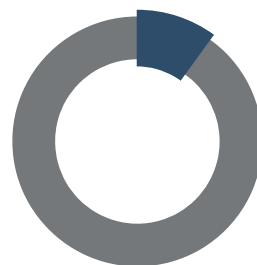
**19%** GDP<sup>1</sup>



**68%** Labor force<sup>1</sup>



**40%** Export revenues<sup>2</sup>



Less than

**10%**

of smallholders have an account at a formal financial institution (bank or MFI).<sup>3</sup>



**72%**

of smallholders live on less than \$2.50 a day.<sup>3</sup>

\*Source: 1) [www.cia.gov/library/publications/the-world-factbook/geos/iv.html](http://www.cia.gov/library/publications/the-world-factbook/geos/iv.html)

2. <http://agriculture.gouv.fr/cote-divoire>

3. National Survey of Smallholder Households in Côte d'Ivoire



# Key statistics from the National Survey of Smallholder Households in Côte d'Ivoire

**5%**

of smallholders have a bank account that is registered in their name

**87%**

of smallholders have no contract to sell any of their crops or livestock

**75%**

of smallholders grow more than one crop to sell

**73%**

of smallholder households own four hectares of land or less

**86%**

of smallholders who have used a mobile phone own a personal mobile phone

**64%**

of smallholders use family labor for agricultural activities

**98%**

of smallholders get paid in cash when they sell

**16%**

of smallholders only have the possibility to pay inputs on credit

**93%**

of smallholders pay for inputs in cash

**31%**

of smallholders raise livestock of any kind

**36%**

of smallholders have used mobile money, and **27%** have a registered account

**83%**

of smallholders sell their crops or livestock in the village



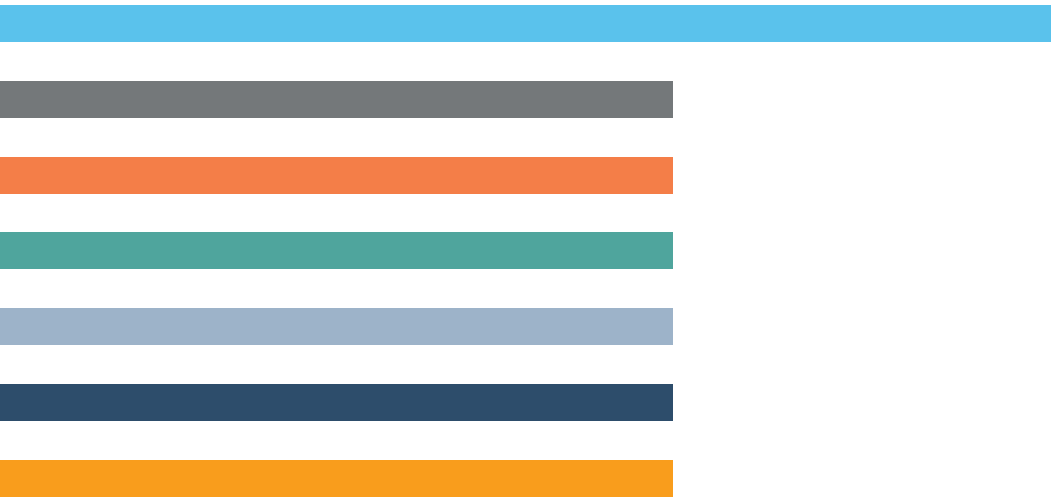


## INSIGHTS

14

What does the data tell us about advancing financial inclusion among smallholder households?

# 7 insights



1

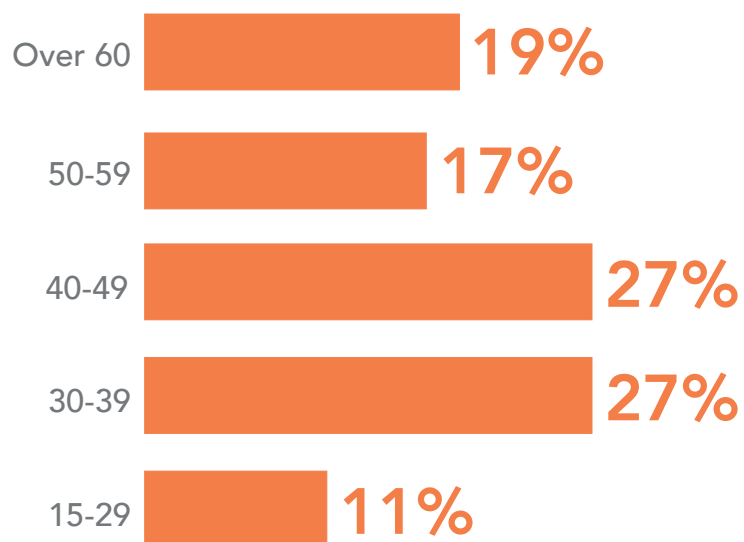
# Demographics



# Farming experience and long tenure are fundamental features of smallholder households in Côte d'Ivoire.

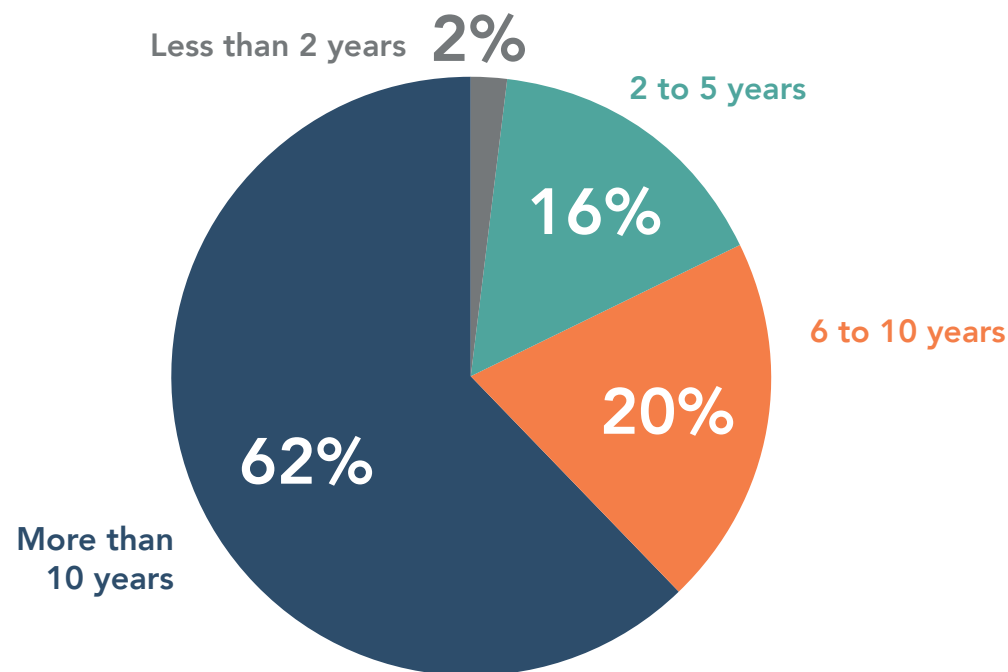
## Age of head of household

Sample: Smallholder households, n=3,019.



## How many years have you been farming?

Sample: Smallholder farmers who participate in agricultural activities, n=2,751.

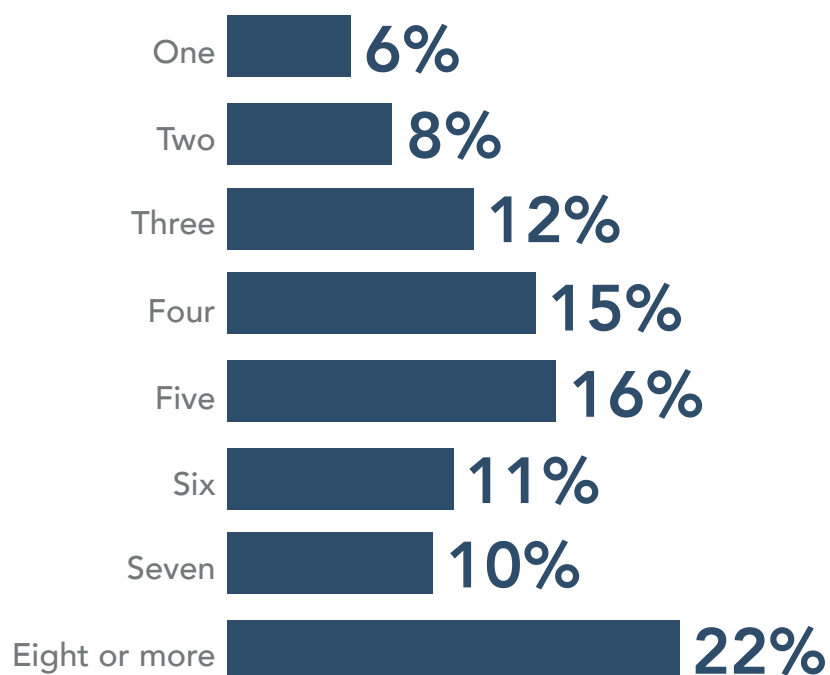


More than 60% are over 40 and have been farming for more than 10 years.

# Smallholder farming households live without much of a cushion to absorb additional expenses.

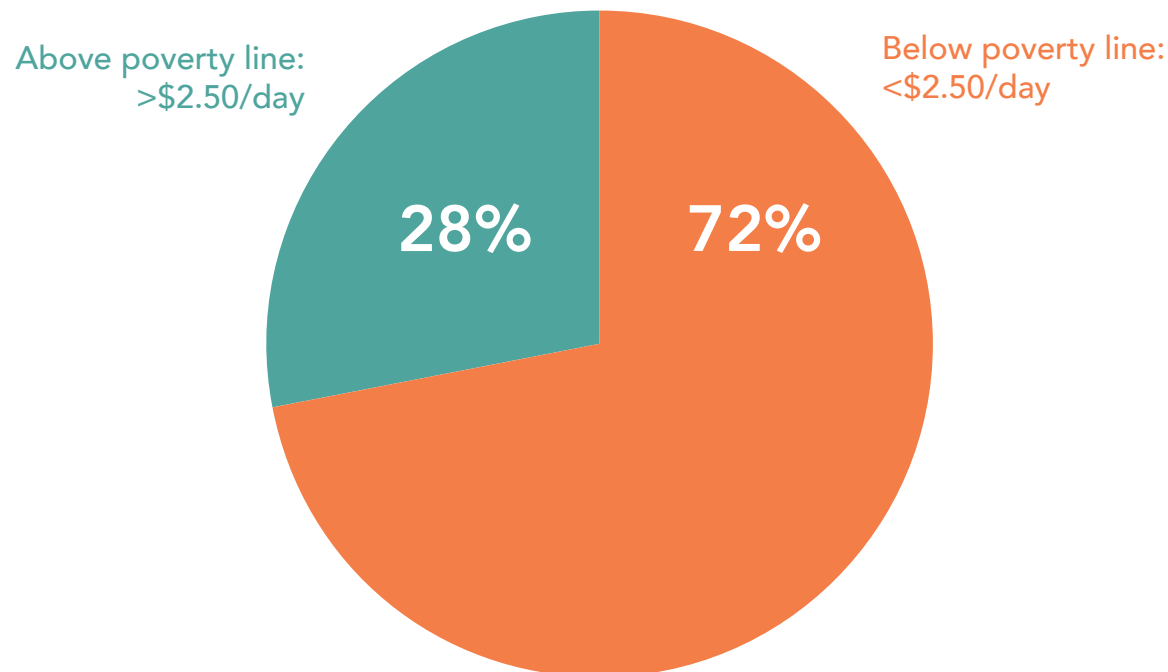
## Number of people in household

Sample: Smallholder households, n=3,019.



## Poverty status of household

Sample: Smallholder households, n=3,019.

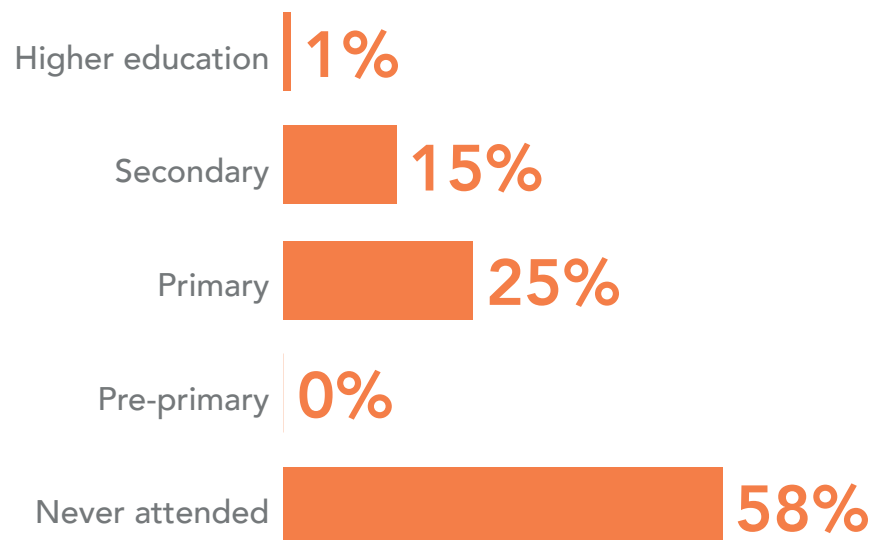


72% live below the poverty line and 34% of them in extreme poverty. Combined with a large household size, this means there is a strain on minimal resources.

# Most heads of household have limited education.

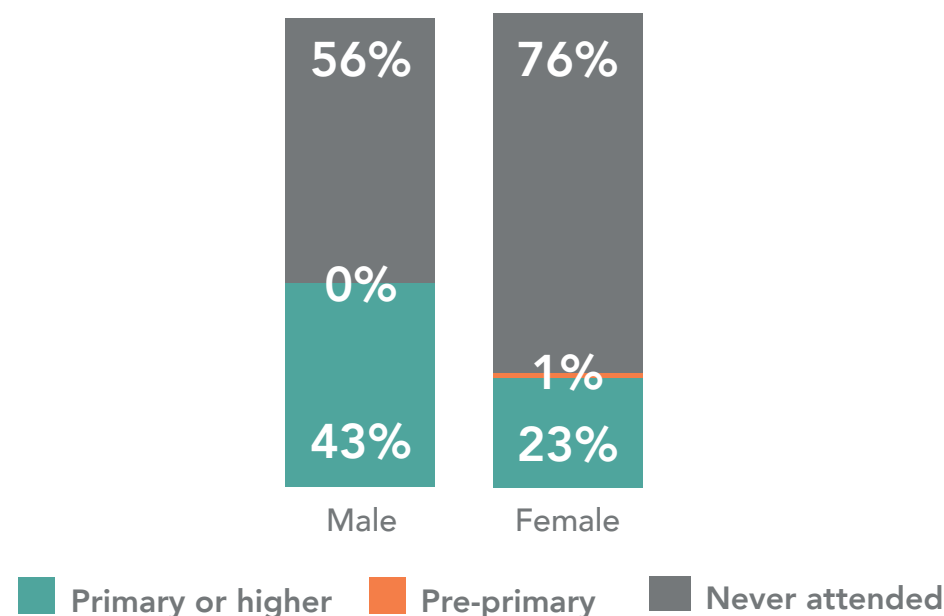
## Highest education attended by head of household

Sample: Smallholder households, n=3,019.



## Highest education attended by gender of head of household

Sample: Smallholder households, n=3,019.

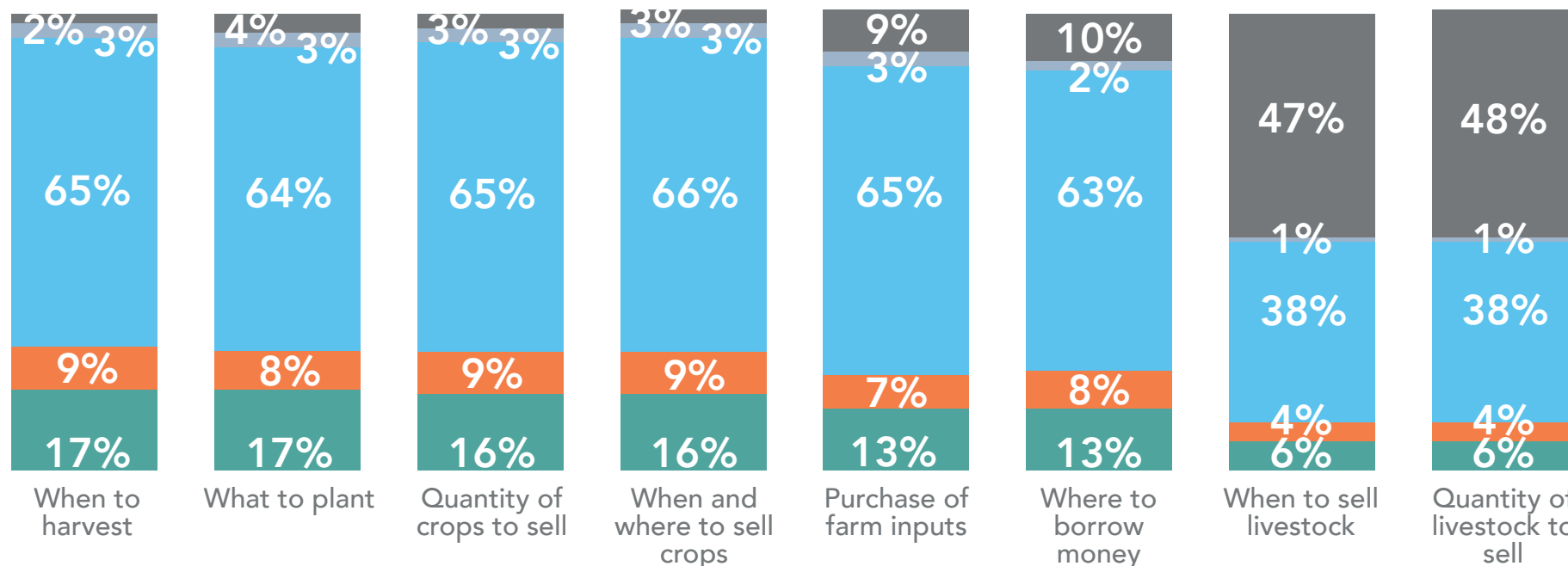
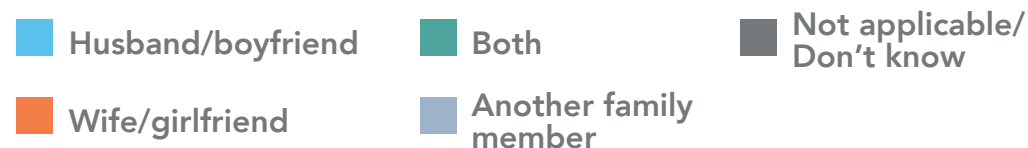


The majority of heads of households in Côte d'Ivoire (58%) never attended school. Education beyond primary school is rare and there is a large gender difference in education levels. Three-fourths of female heads of household never attended school.

# Women do not have a significant role in decision-making.

## Generally, who makes decisions on the following agricultural activities?

Sample: Smallholder households, n=3,019.



Men head the great majority of smallholder households in Côte d'Ivoire (90%), and agricultural decisions appear firmly within male hands. Women are likely to have input on any given agricultural decision less than 25% of the time.



# What does the data teach us?

**The Ivoirian smallholder population reflects a robust, aging generation, either in or past their most productive years.**

- With just over one-tenth of smallholders in Côte d'Ivoire under the age of 30, there is a relatively small presence of the “next generation” of farmers within the existing head-of-household population.
- The low levels of education make it more difficult for farmers to consider diversification and they are more or less inclined to stay in agriculture. Furthermore, low levels of education mean that farmers could struggle to access and leverage information.
- The current dynamics may pose challenges for the future of the agricultural sector and could adversely impact the success of the next generation of farmers.



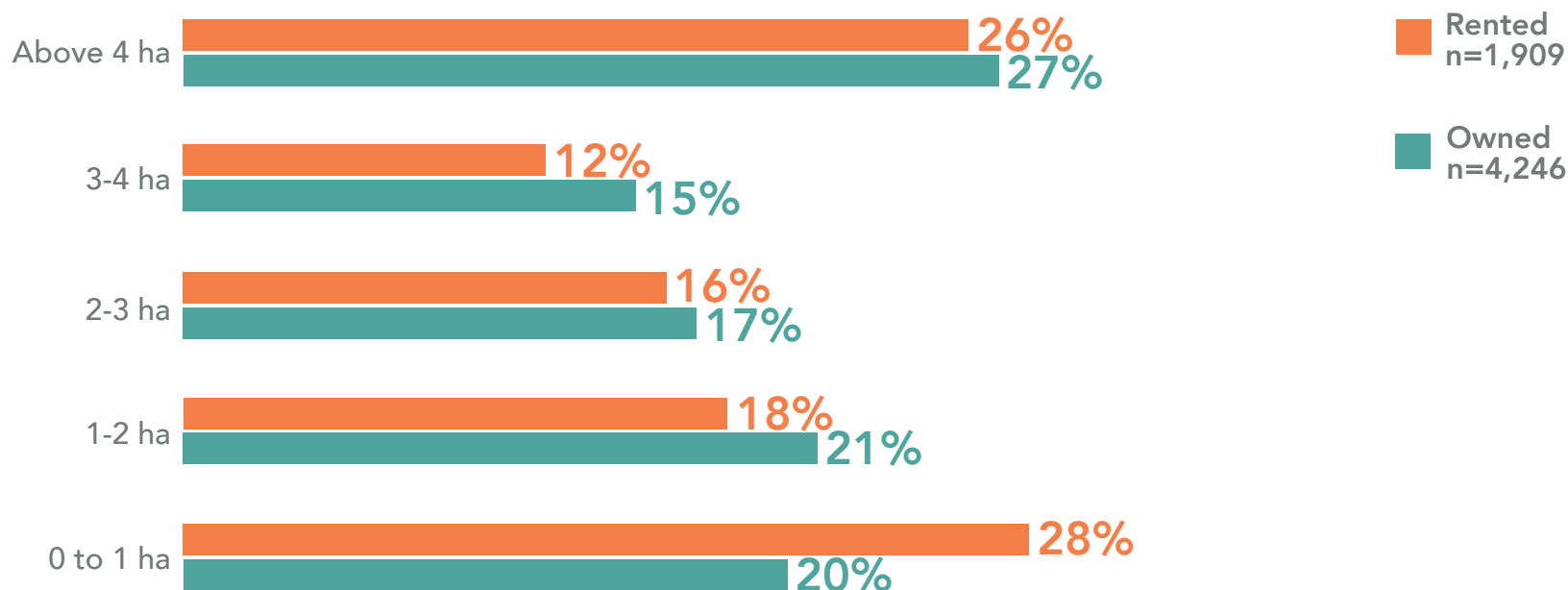
# 2

## Agriculture

# 73% of small farmers own four hectares of land or less.

## How many hectares (ha) of agricultural land do you own?

Sample: Smallholder farmers.



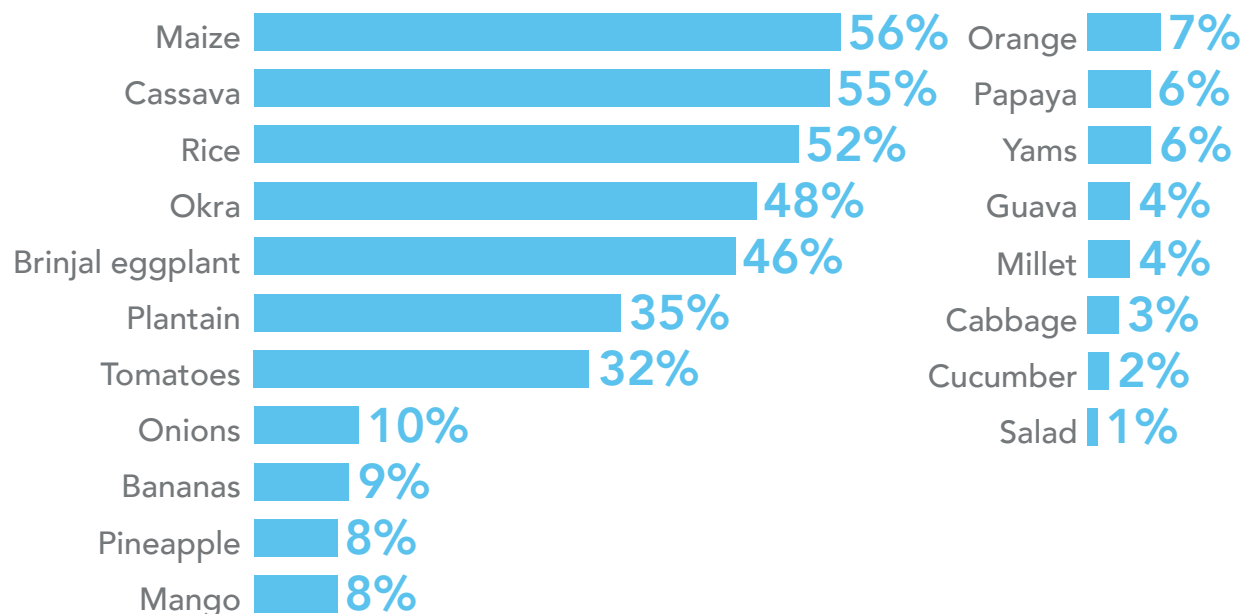
Rented land skewed slightly smaller. More than a quarter of these plots are less than one hectare in size.

# Diversity and abundance of crop type best characterize what smallholders in Côte d'Ivoire typically grow...

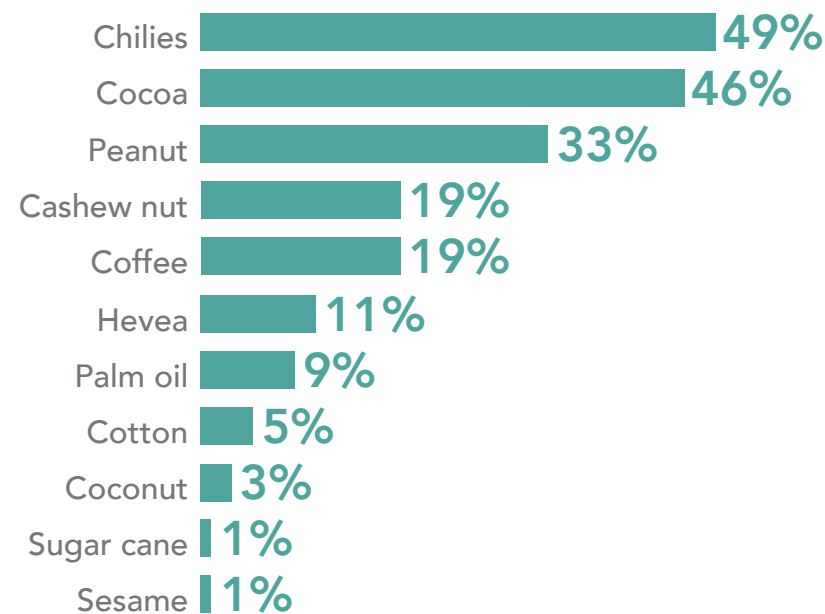
## Which of the following crops do you grow?

Sample: Smallholder farmers who participate in agricultural activities, n=5,354.

### FOOD AND STAPLE CROPS



### CASH CROPS



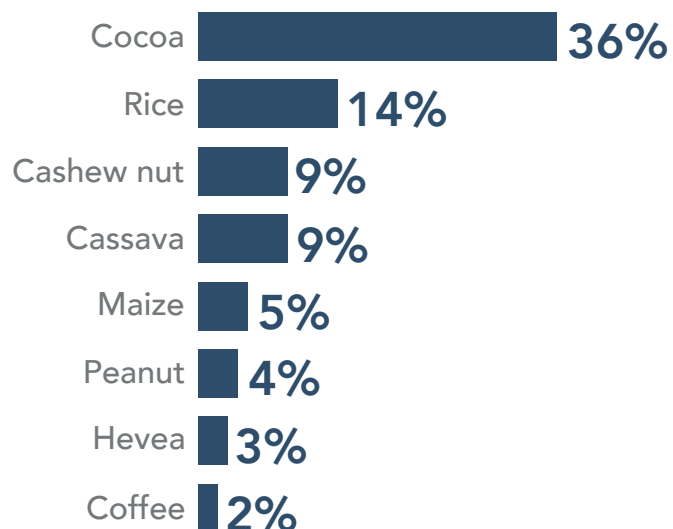
89% of smallholder families in Côte d'Ivoire typically grow both food and staple crops, as well as cash crops. The choice of crops shows some gender differentiation. 60% of male smallholders and only 28% of female smallholders grow cocoa. In contrast, only 38% of male smallholders and 62% of female smallholders grow chilies.



# ...but there is some dependency, as most smallholders depend on rice for consumption and cocoa for income.

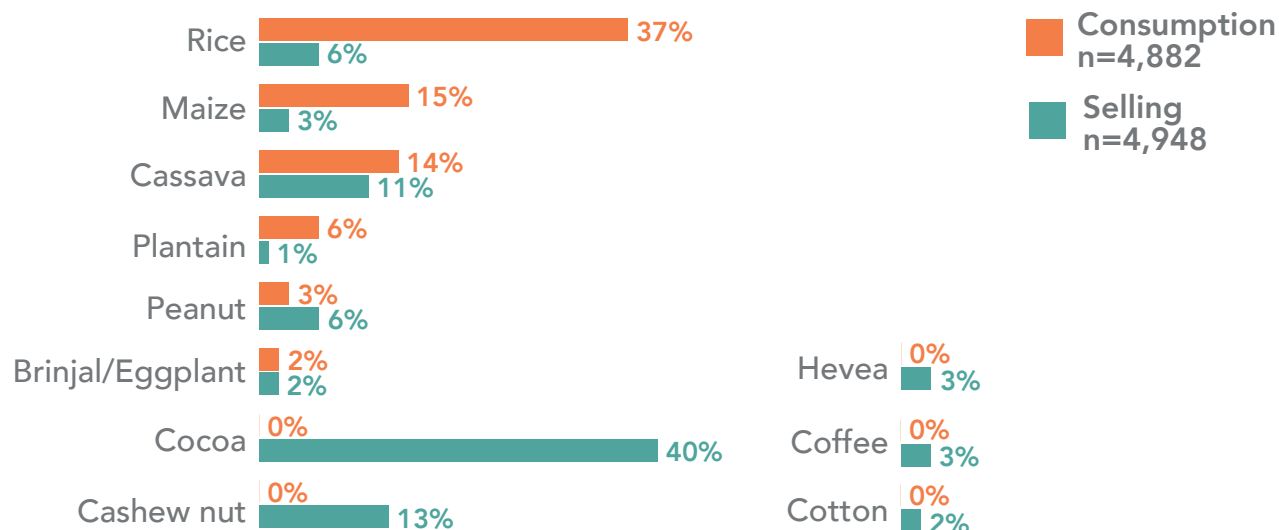
## Which of the following crops that you grow is the most important to you and your family?

Sample: Smallholder farmers participating in agriculture who grow at least one crop, n=5,202.



## Which of the following crops do you consume the most/get the most money from selling?

Sample: Smallholder farmers who grow crops. Responses ranked by consumption and later by sales. Frequently mentioned crops shown below.

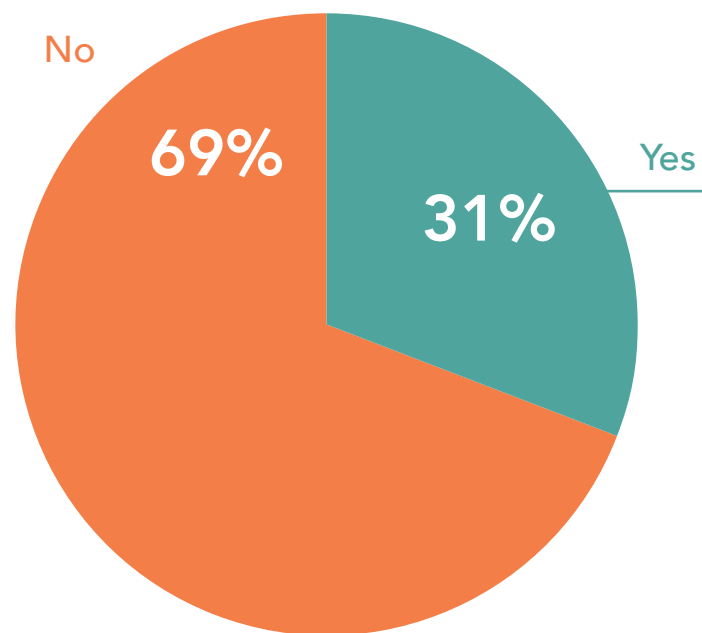


Even if there are regional variations in crops grown, cocoa and rice distinguish themselves as having greater importance to smallholder farmers. This dependence exposes them to great risk in the event that these two crops are affected by a negative natural or financial event.

# Fewer smallholders raise livestock.

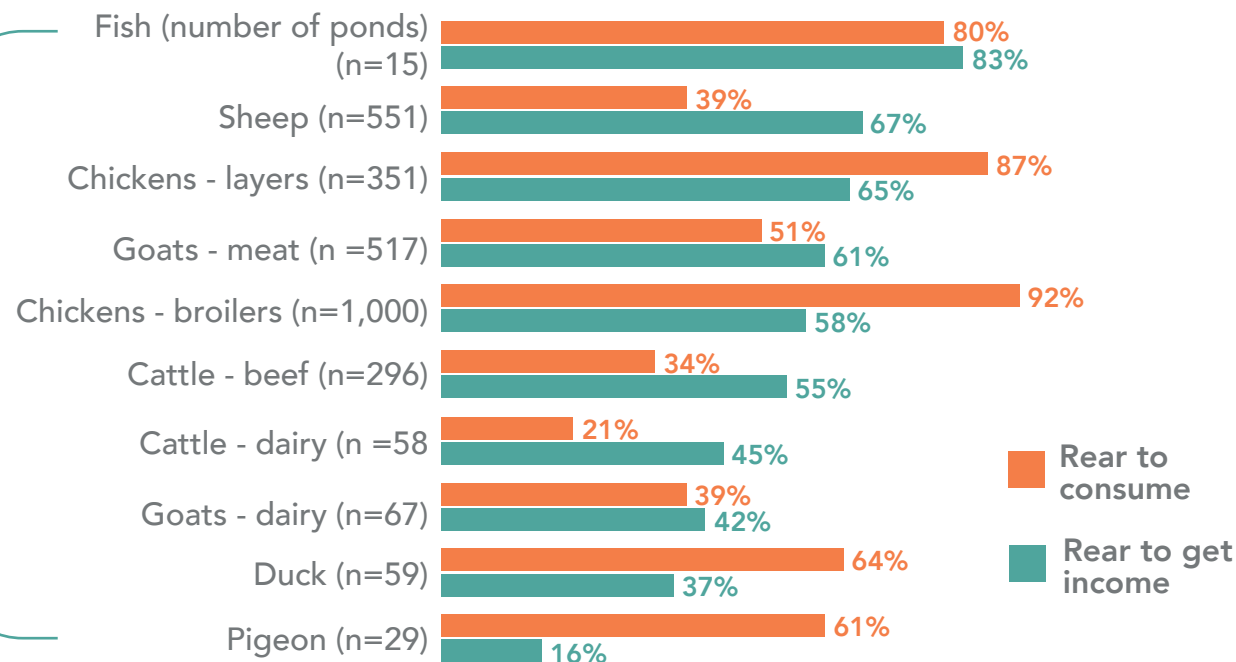
## Do you have any livestock, herds, other farm animals, or poultry?

Sample: Smallholder farmers who participate in agricultural activities, n=5,354.



## Which of the following do you rear and get income/consume?

Sample: Smallholder farmers who have any livestock, herds, other farm animals or poultry, n=1,623. Multiple responses allowed.

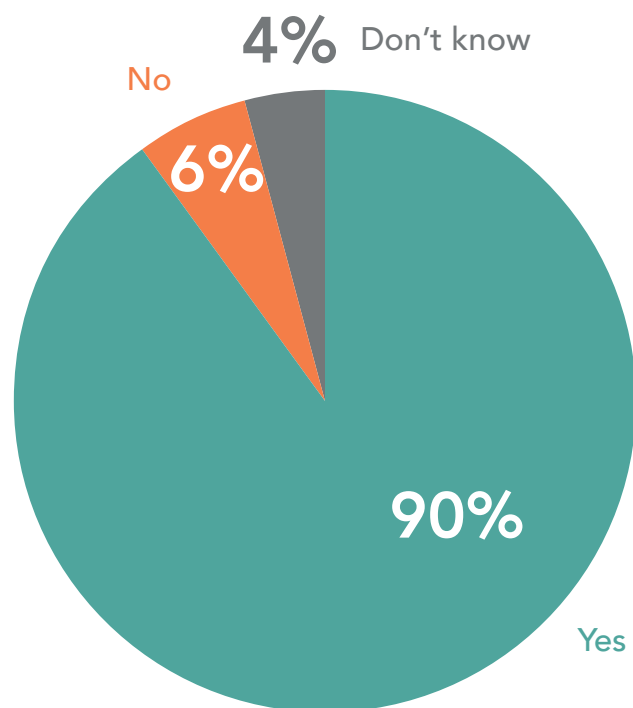


Three in ten (31%) smallholder farmers in Côte d'Ivoire raise livestock of any kind. As with crops, livestock are reared for both consumption and sale.

# Despite the difficulties, the desire to continue in agriculture is very strong.

## Do you intend to keep working in agriculture?

Sample: Smallholder farmers who participate in household's agricultural activities, n=2,751.



# 90%

of smallholder farmers  
intend to keep working in  
agriculture

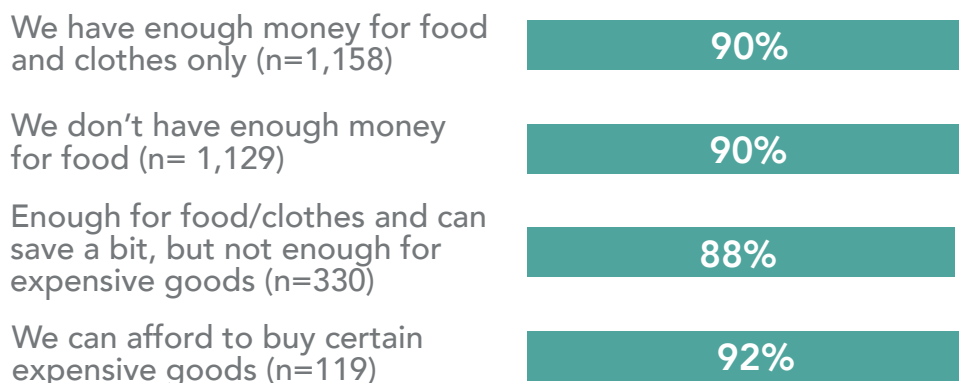


# Intent is consistent across tenure in farming and regardless of financial situation.

## Do you intend to keep working in agriculture?

Sample: Smallholder farmers who participate in household's agricultural activities, by household's current financial situation (self-assessed).

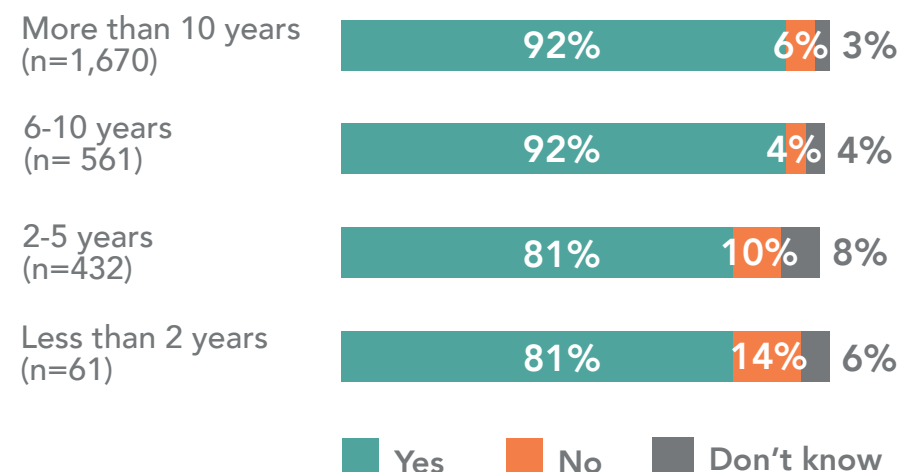
### BY HOUSEHOLD'S CURRENT FINANCIAL SITUATION



## Do you intend to keep working in agriculture?

Sample: Smallholder farmers who participate in household's agricultural activities, by number of years in farming.

### BY NUMBER OF YEARS IN FARMING

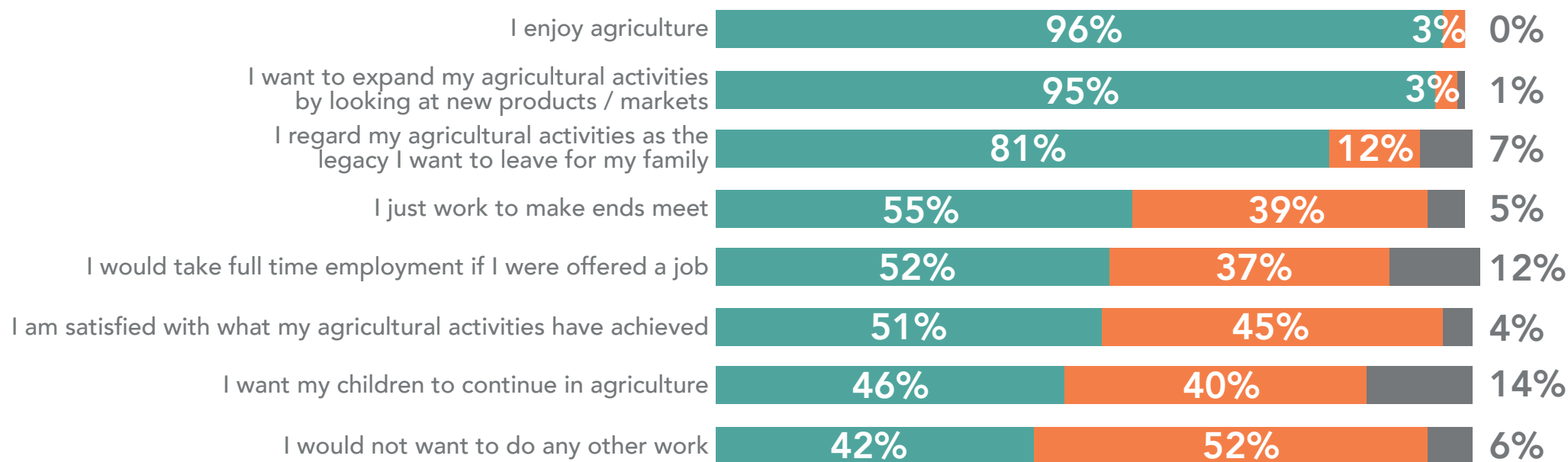


# Agriculture is not only what feeds the household, it is also a livelihood that smallholders enjoy.

## Do you agree or disagree with the following statements?

■ Agree ■ Disagree ■ Don't know

Sample: Smallholder farmers who participate in household's agricultural activities, n=2,751.



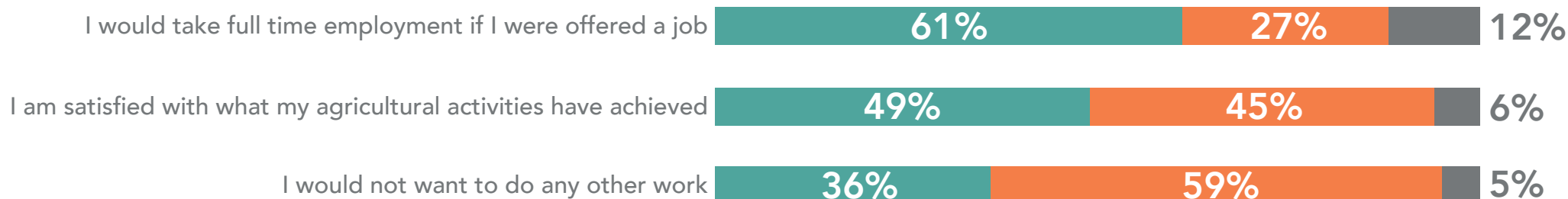
Smallholders have mixed feelings about their future aspirations. They profess a strong commitment to agriculture, enjoy the work, and want to expand their agricultural activities. At the same time, more than half would take full-time employment if the opportunity arose.

# The youngest generation of smallholders shows even more interest in full-time employment outside of farming.

## Do you agree or disagree with the following statements?

Sample: Smallholder farmers aged 15-29 who participate in household's agricultural activities, n=556.

■ Agree ■ Disagree ■ Don't know



61% of younger smallholders would take full-time employment if offered.

# What does the data teach us?

Smallholder farmers want to remain in farming, but the stark realities of their limited resources and agriculture's abundant risks force some of them to consider life outside of farming, even if they have no other skills.

- New opportunities to improve the current situation of smallholder farmers will be crucial for younger smallholders to remain in farming and flourish.
- More advanced thinking is required around methods for diversifying income sources to either include non-agricultural income, and/or income from a specific collection of crops where there is a market value.





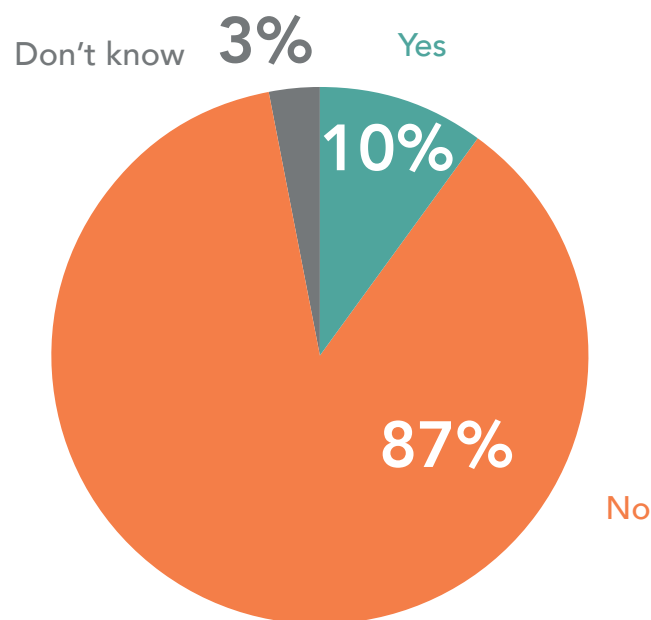
3

Informality

# Smallholders sell without contracts...

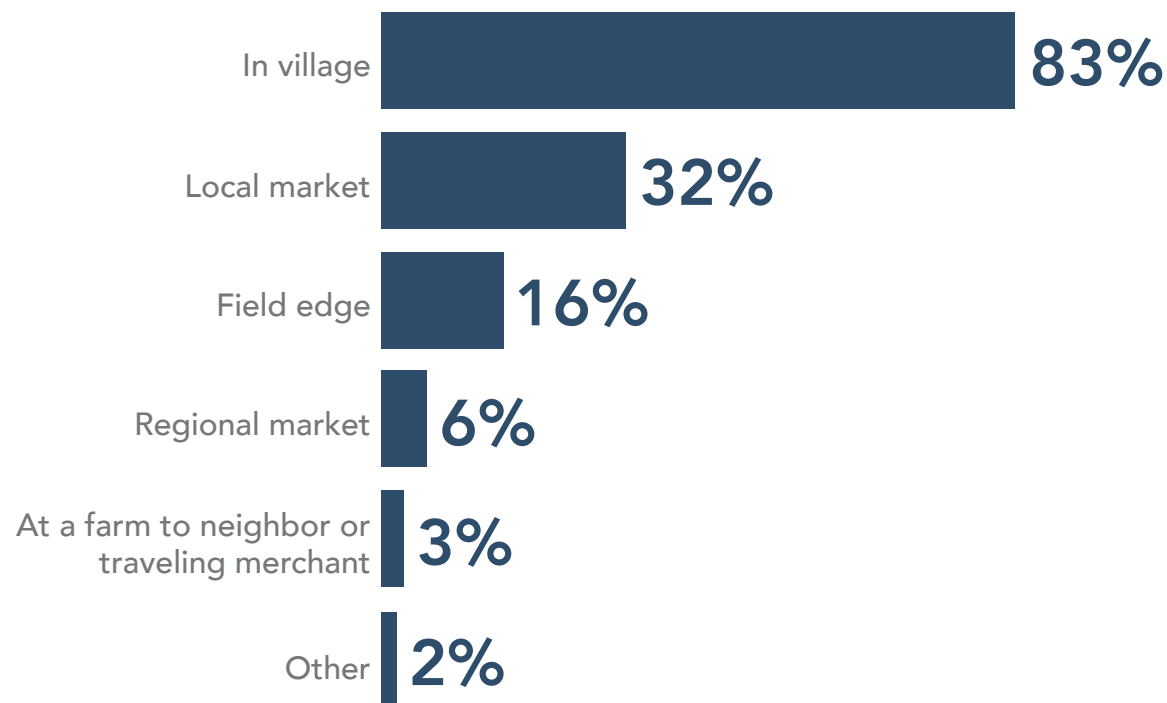
## Do you have a contract to sell any of your crops or livestock?

Sample: Smallholder farmers who grow and sell crops, n=4,948.



## Where do you normally sell your crops and livestock?

Sample: Smallholder farmers who grow and sell crops, n=4,948. Multiple responses allowed.

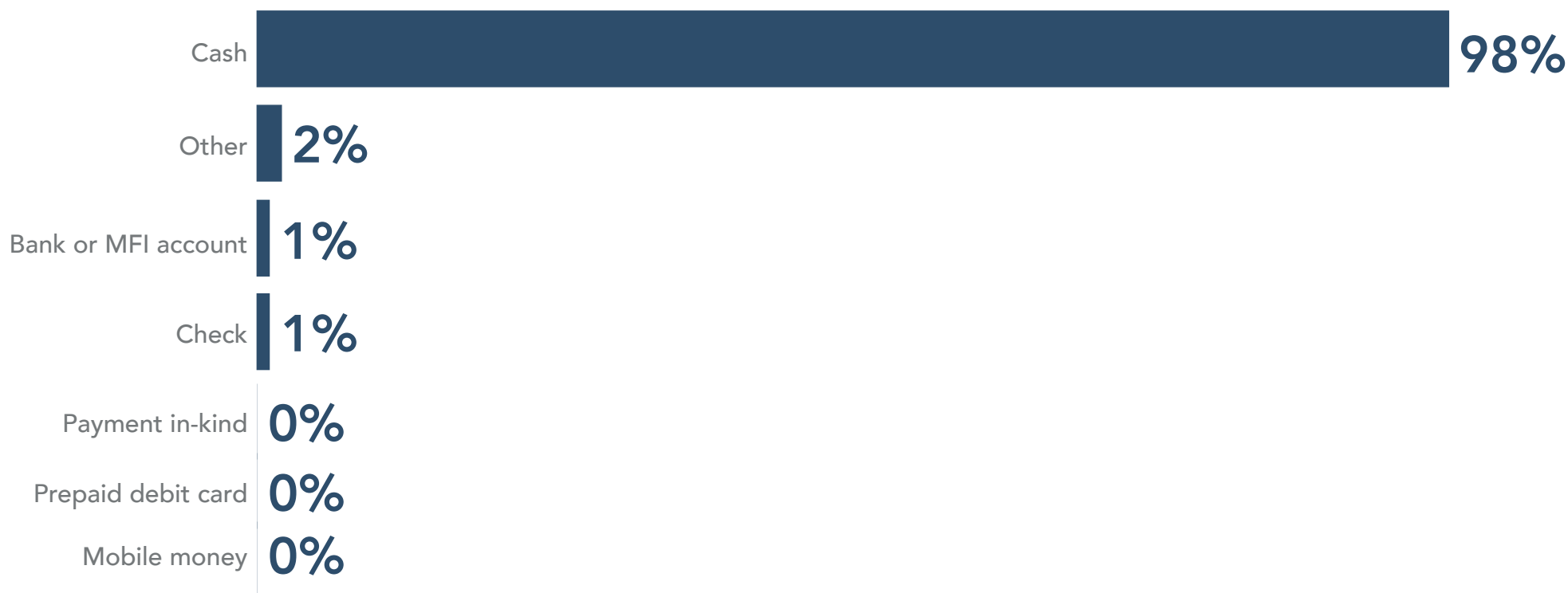


Nearly all sales happen outside of a formal agreement.

# ...and get paid in cash.

## How do you usually get paid for what you sell?

Sample: Smallholder farmers who grow and sell crops, n=4,948. Multiple responses allowed.

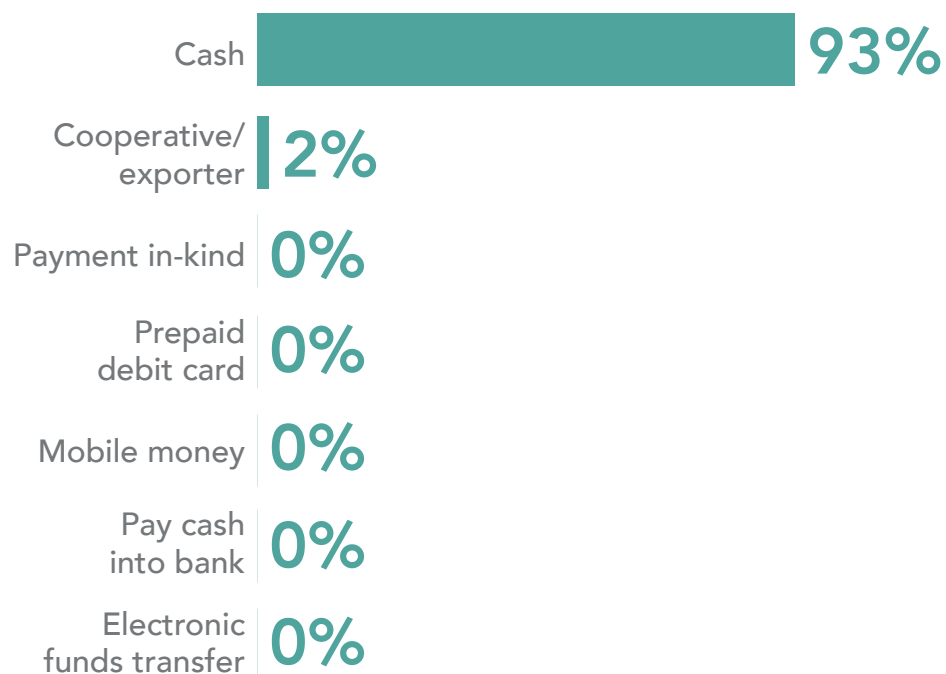


Transactions are almost exclusively conducted in cash. No other form of payment surpasses 2%.

# They also pay for their agricultural inputs in cash.

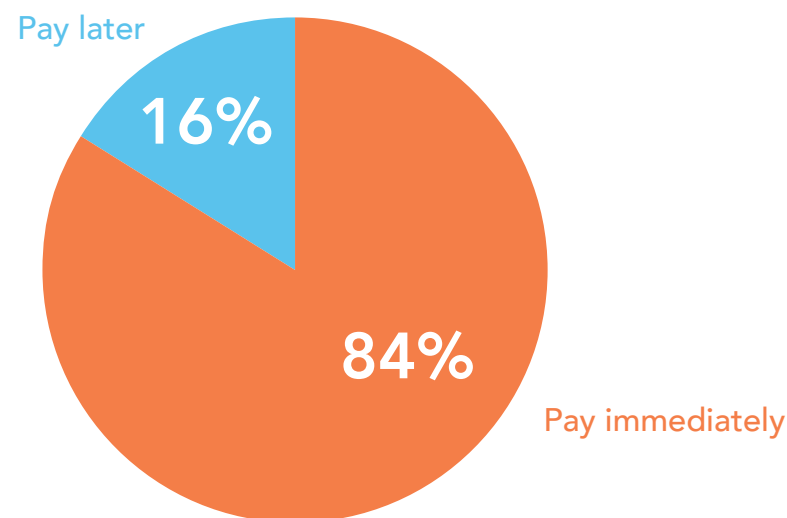
## How do you usually pay your suppliers of inputs?

Sample: Smallholder farmers who purchase main agricultural and livestock inputs, n=3,795. Multiple responses allowed.



## Do your suppliers give you the option to pay them later or do you have to pay immediately?

Sample: Smallholder farmers who pay suppliers for inputs, n=3,681.

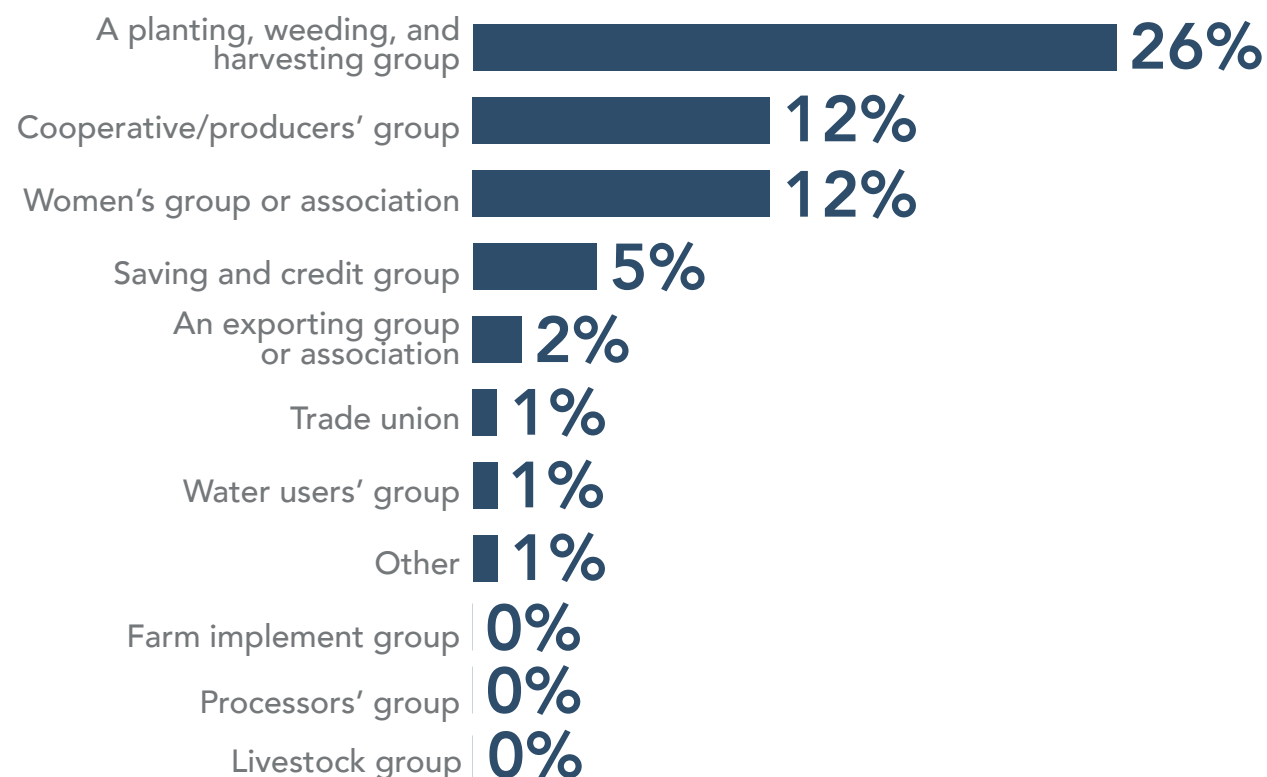


93% of smallholder farmers pay for inputs in cash. Only 16% have the option to pay later.

# Few farmers are members of a formal agricultural organization.

## Are you a member of any of the following groups or associations?

Sample: Smallholder farmers who participate in household's agricultural activities, n=2,751. Multiple responses allowed.



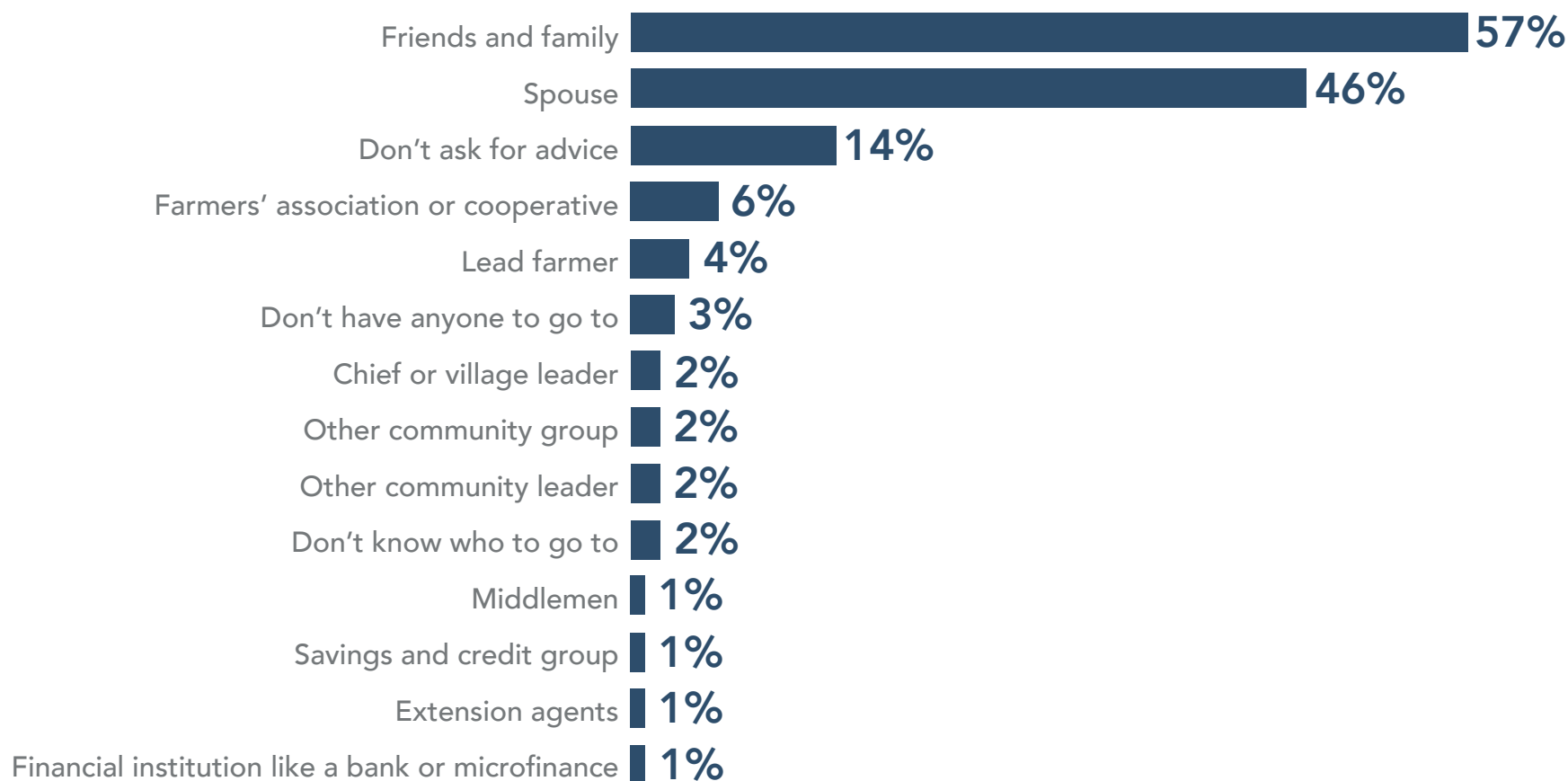
Only 15% of farmers are a member of a formal agricultural organization like a cooperative, exporting group, or trade union.



# Smallholders rely on family and friends for financial or income-related and advice.

## When it comes to financial or income-related advice, who do you regularly talk to?

Sample: Smallholder farmers, n=2,949. Multiple responses allowed.



# Smallholders rely on family and friends for agricultural activities information.

## How often do you use each of the following sources of information for agricultural activities?

Sample: Smallholder farmers who participate in household's agricultural activities, n=2,751.

	Daily	Weekly	Monthly	More	Never
Friends or family members	43%	12%	10%	18%	13%
Cellphone/SMS	27%	5%	2%	4%	55%
Radio	19%	11%	5%	8%	49%
Community members	17%	10%	7%	11%	45%
Television	9%	6%	3%	7%	66%
Religious leaders	5%	12%	3%	5%	66%
Merchants	3%	3%	5%	8%	70%
Cooperative	2%	5%	9%	6%	66%
Input suppliers	2%	4%	9%	10%	65%
Intermediaries/middlemen	1%	1%	2%	5%	77%
Newspapers/magazines	1%	1%	2%	2%	88%
Internet	1%	1%	1%	1%	93%
School teachers	1%	1%	3%	4%	83%
Government officials	0%	1%	4%	6%	75%
Rural development agents/NGOs	0%	1%	5%	5%	76%
Government extension workers	0%	0%	2%	4%	79%

Smallholders in Côte d'Ivoire most frequently turn to their families, friends and community for information on agricultural activities, followed by cell phone/SMS. Their friends and family, including the respondents' spouses, are their primary sources of financial advice.

# What does the data teach us?

**Smallholders in Côte d'Ivoire exist largely in the informal economy. Most transactions happen in cash and agricultural activities are conducted without contracts and aggregation.**

- Farmers' dependence on cash represents a key constraint for their integration in the financial system as they lack historic data on their transactions and incomes.
- The concentration on family and friends as a source of financial advice, combined with the very limited exposure to other outside sources, suggests there could be a lack of existing information channels for bringing in new, current and relevant news about financial mechanisms into smallholder farming communities.
- The limited number of farmers in formal organizations is a constraint to entering into contracts and negotiating access to input credit. Stronger aggregation points for smallholders in Côte d'Ivoire would offer an opportunity for better support.



# 4

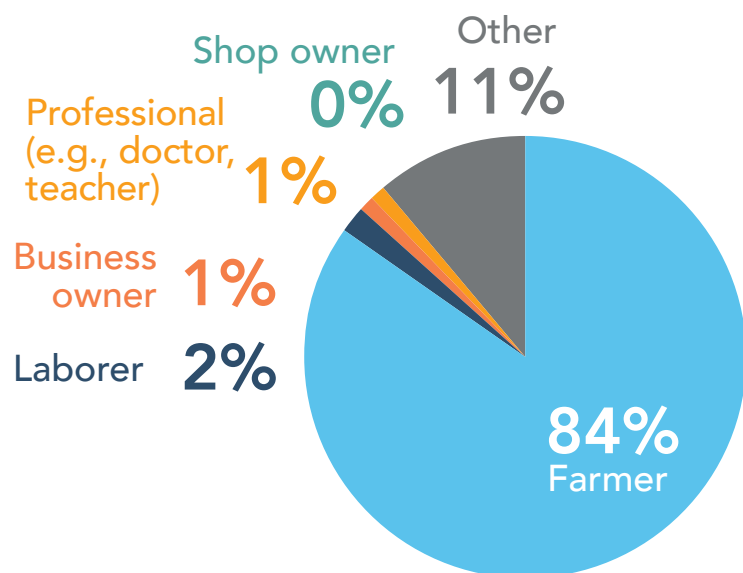
## Income and expenses



# Smallholder households in Côte d'Ivoire are heavily dependent on incomes from growing and selling crops...

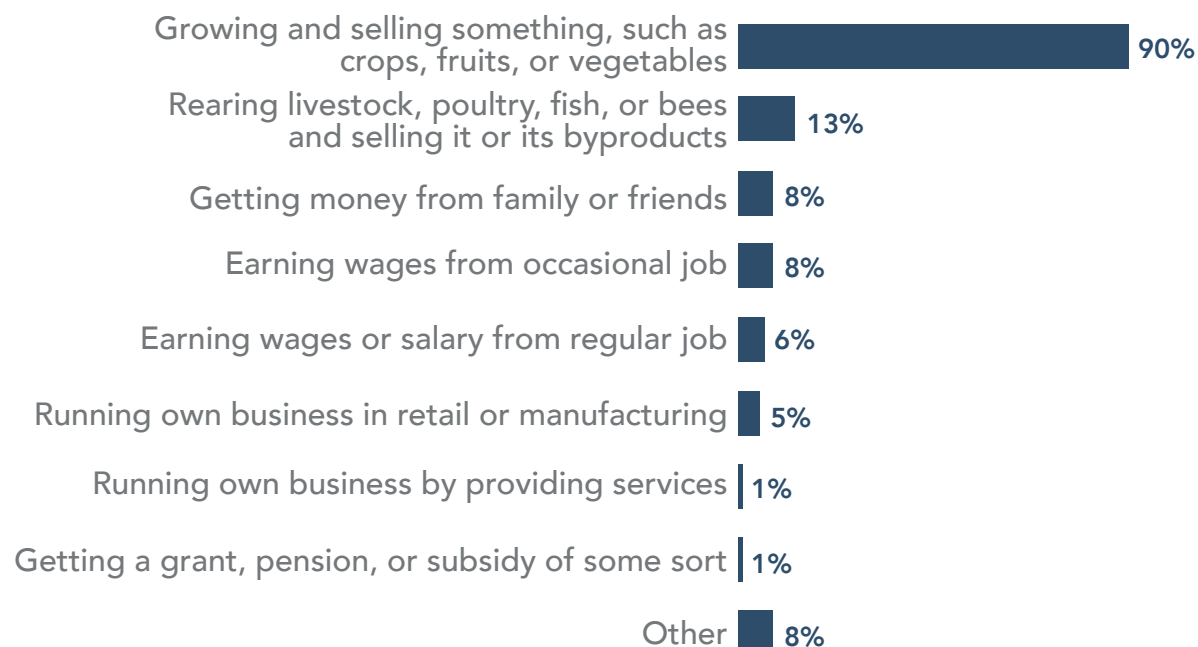
## What is your primary job?

Sample: Smallholder farmers, n=5,706.



## Do you generate income from any of the following sources?

Sample: Smallholder farmers, n= 5,706. Multiple responses allowed.

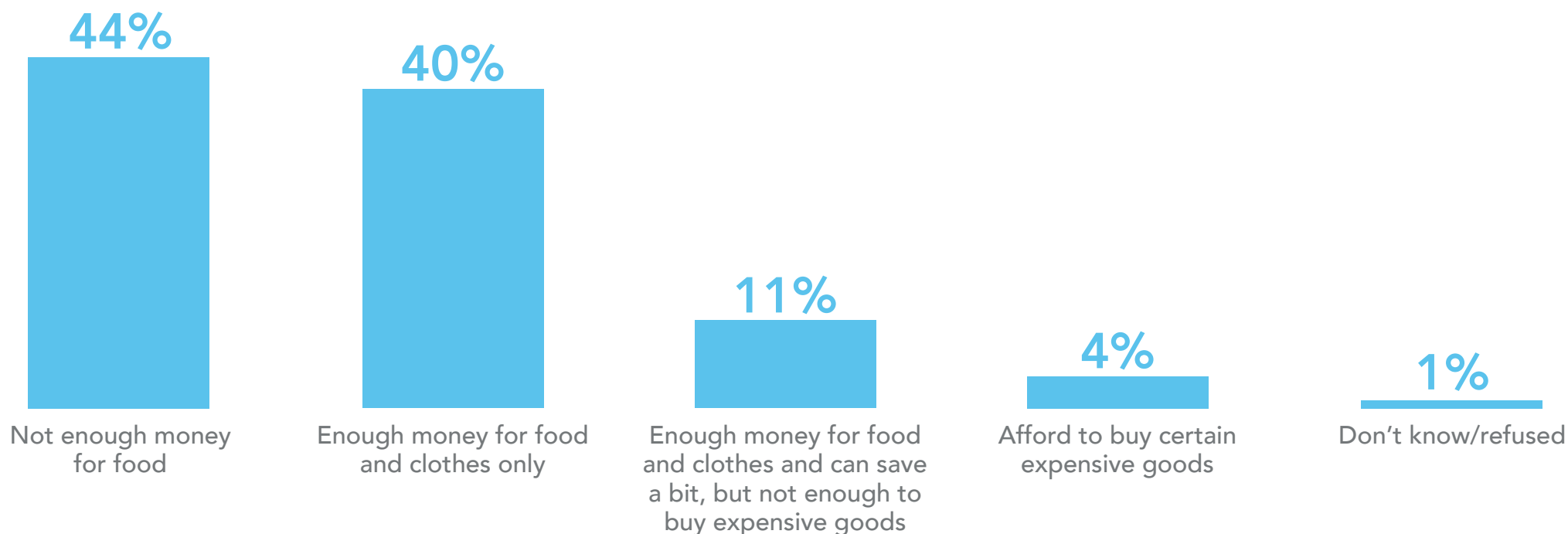


For more than eight in ten smallholders, farming is their primary job (i.e., where they spend the most of their time). 90% generate income from growing and selling crops and 13% from rearing and selling livestock. Less than 10% undertake other activities to supplement their incomes and few receive remittances from family and friends.

# ...and almost half of them typically do not have enough money for food.

## Household's current financial situation (self-assessed)

Sample: Smallholder households, n=3,019.

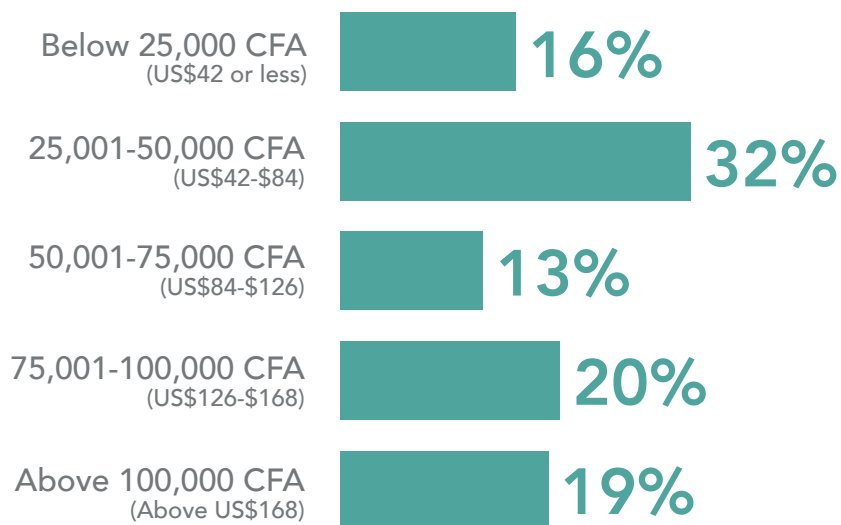


Because smallholder households farm for subsistence, the little money earned from selling what they grow goes to buying food that is not available through their farming activities, as well as other basic needs.

# The income needs of smallholder households varies.

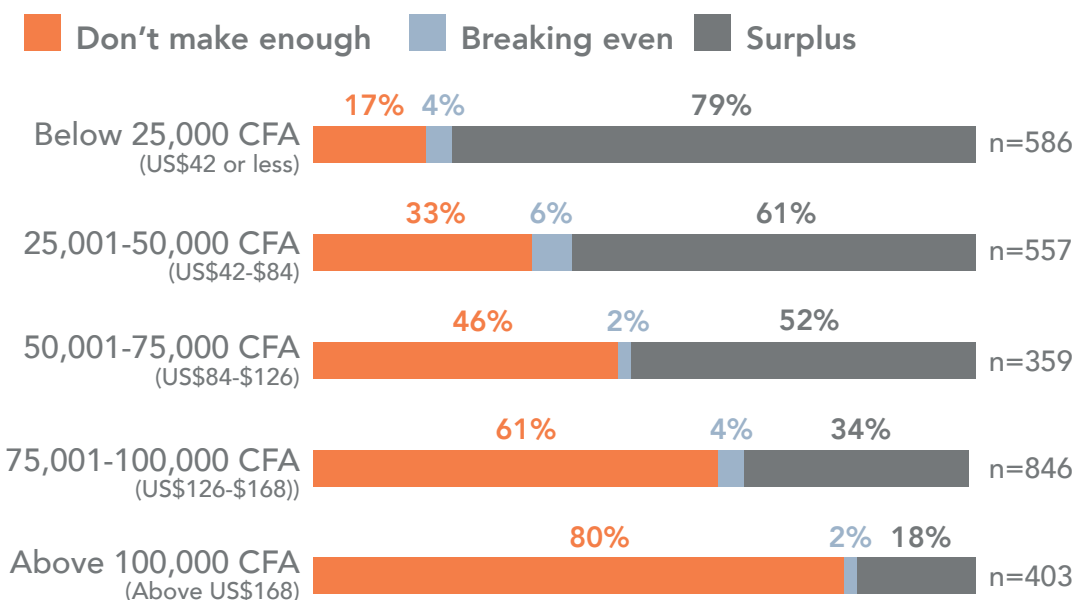
## What is the minimum amount your household needs to survive per month (for personal expenses)?

Sample: Smallholder households who gave a minimum amount for households' survival n=2,864. Quintile.



## What is the minimum amount your household needs to survive per month (for personal expenses) and is your income sufficient?

Sample: Smallholder households who gave amount of survival and income in each category.



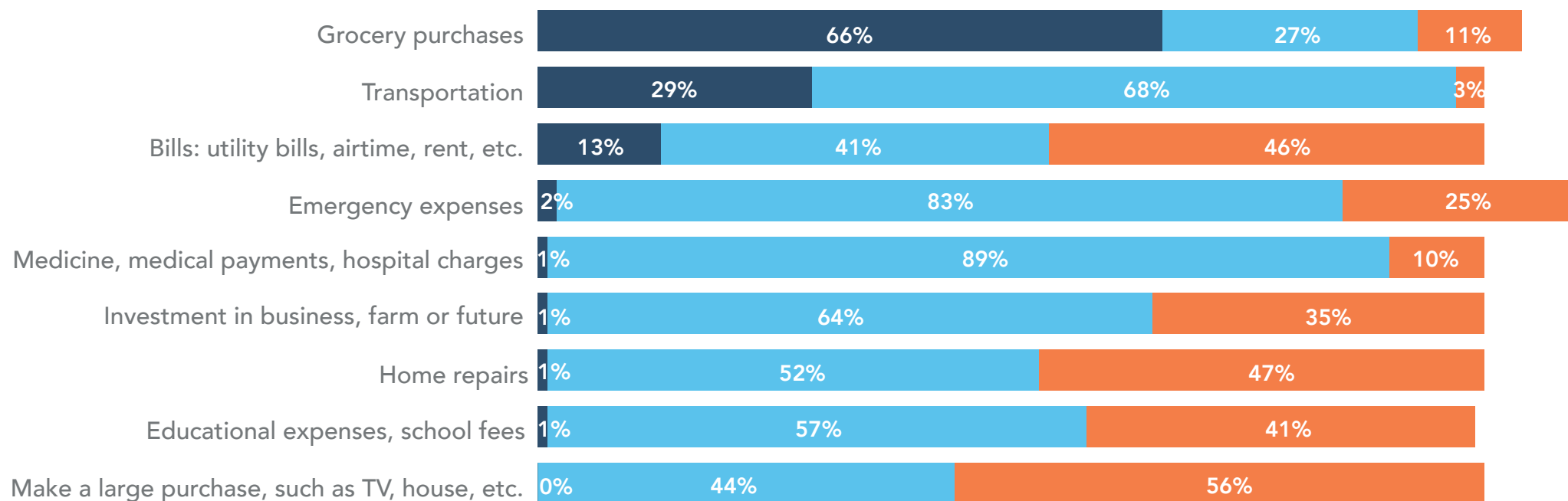
While lower-income smallholder households in Côte d'Ivoire are vulnerable, they report more budgeting within their means and a lower incidence of falling short.

# The expenses of smallholder households reflect a conventional spending framework, where smaller expenses are incurred more regularly than larger expenses.

## How often do you make each of the following expenses?

■ At least once a week ■ Less often ■ Never

Sample: Smallholder households, n=5,706. Ranking by once a week.



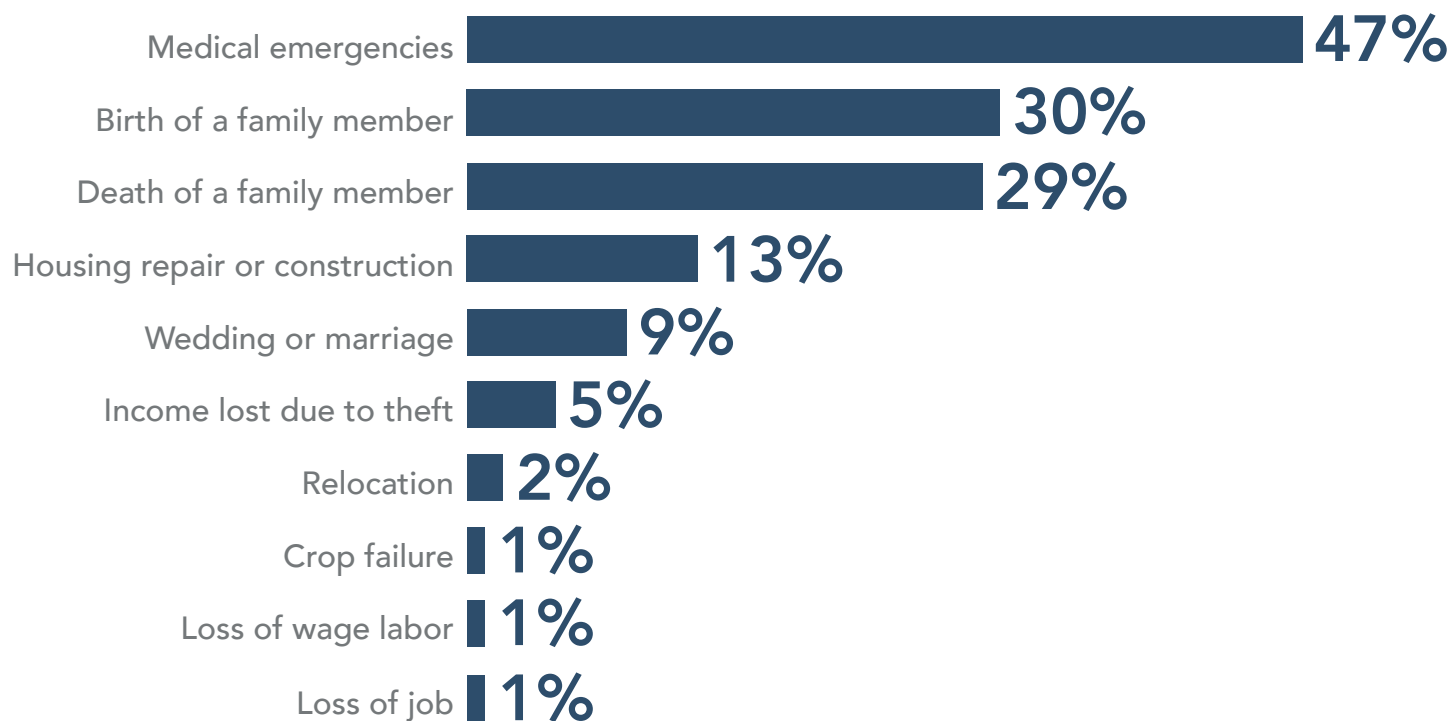
Grocery expenses are the most frequent expense for smallholders. Grocery sellers could serve as a merchant channel to expand the digital financial ecosystem, given how much of the population they touch. Male and female smallholders in Côte d'Ivoire spend on expenses at a slightly different frequency. Women are more likely to spend on a weekly basis for groceries, while men have a greater tendency to pay for transportation and bills.



# Medical emergencies have hit hard.

In the past 12 months, have you experienced any of these events?

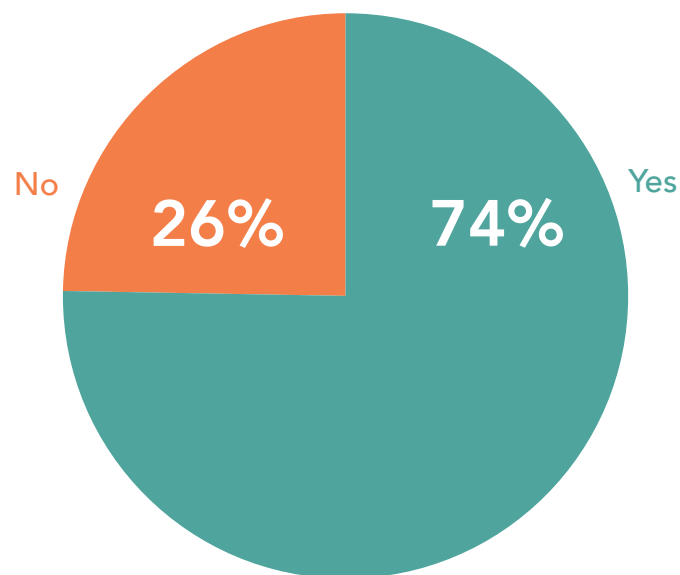
Sample: Smallholder farmers, n=2,949. Multiple responses allowed.



# Coping with emergencies is a struggle.

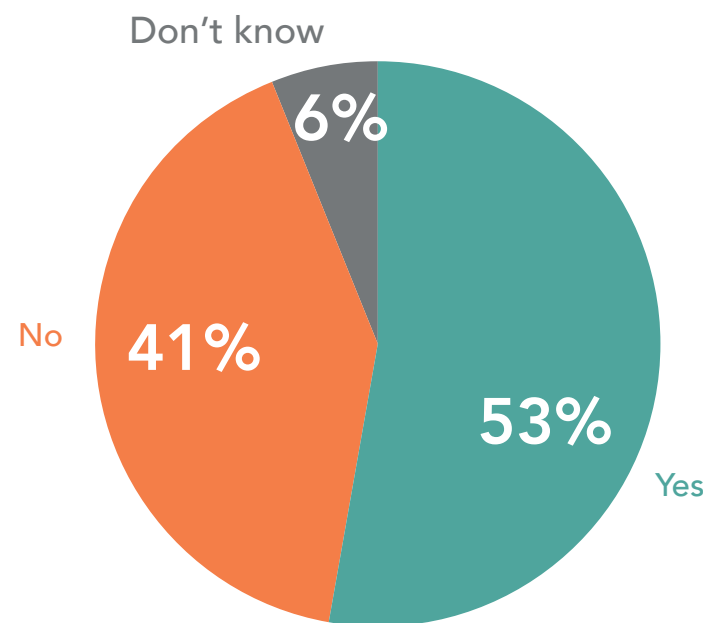
**In the past 12 months, have you experienced any events?**

Sample: Smallholder farmers, n=2,949.



**In the event of an emergency, could you get extra money through relatives sending money or by selling assets?**

Sample: Smallholder farmers, n=2,949.



More than seven in ten smallholders in Côte d'Ivoire endured financial shocks and major events in the year prior to this survey. But only half (53%) would be able to cope by getting money from relatives or selling assets.

# What does the data teach us?

While a large portion of smallholders in Côte d'Ivoire equate the most important income source with the one they like getting the most, the heavy dependence of their income on growing and selling crops places them in a fragile situation.

- Almost 70% had their agricultural activities seriously affected by a weather-related event in the past three years.
- Smallholder households have no plan in place to manage and cushion shocks, but they want to have more options for mitigating risk. This is an opportunity for financial services providers to develop insurance products and help smallholders cushion against risks.
- The frequency of expenses both by women and men indicates opportunities for the development of a digital payment ecosystem in rural areas.

A decorative graphic on the left side of the slide consisting of seven horizontal bars of equal length. The bars are colored from top to bottom: light blue, dark grey, orange, teal, light blue, dark blue, and orange. The light blue bar is the longest, while the others are shorter.

5

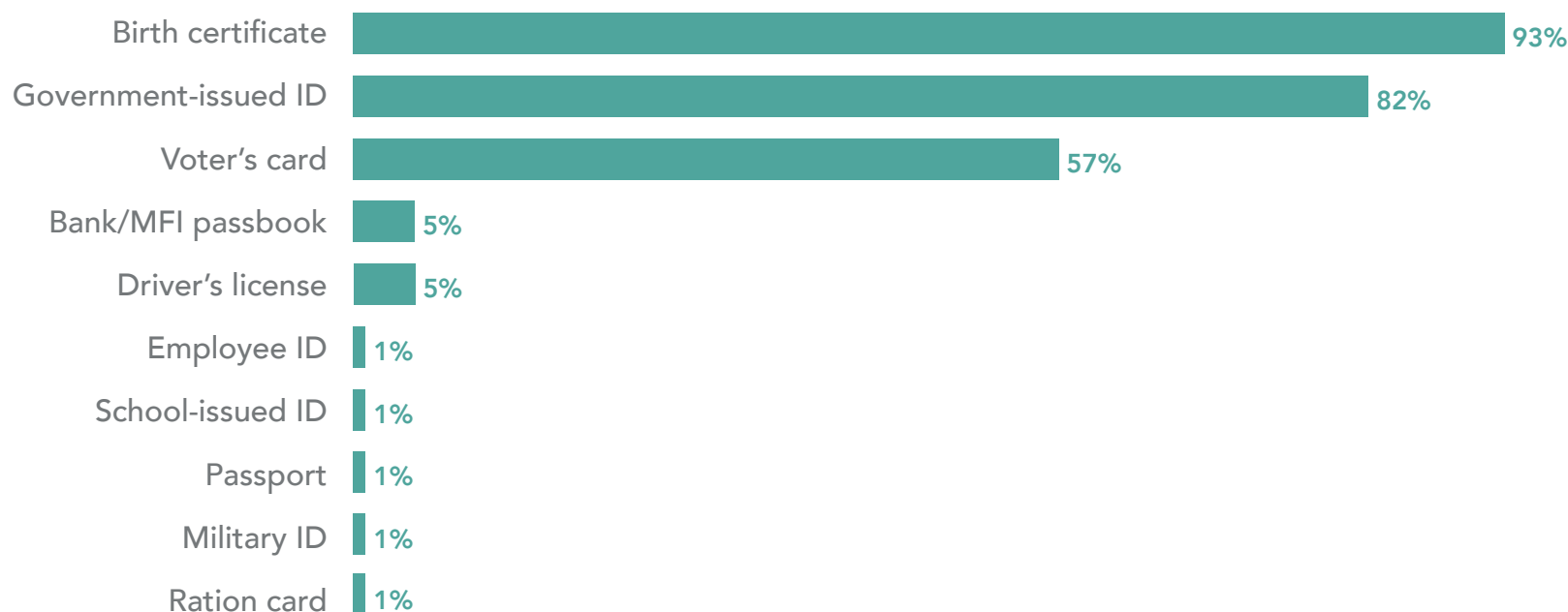
**Financial tools**



# Most smallholders would have the necessary identification to open a financial account at a formal financial institution.

## Do you have any of the following types of official identification?

Sample: Smallholder farmers, n=5,706. Multiple responses allowed.

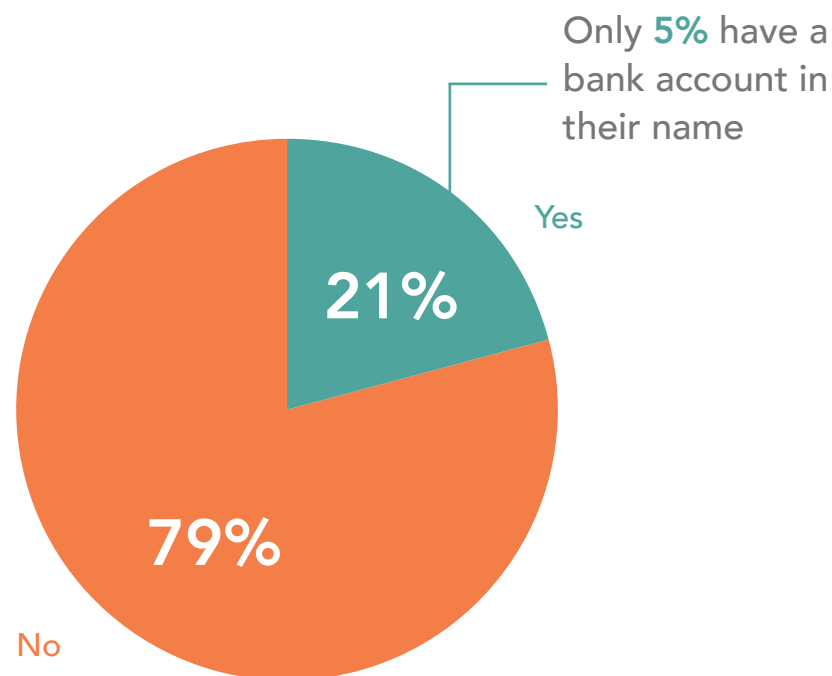


In Côte d'Ivoire, identification is not a barrier to opening a financial account.

# Though most smallholders see a bank account as important for savings, 79% have never been inside a bank.

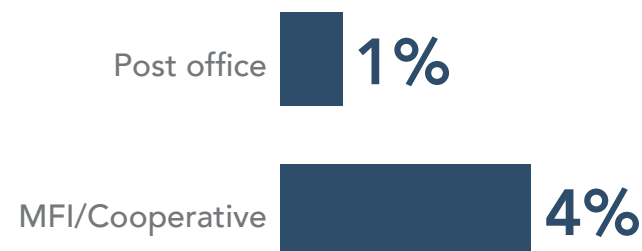
## Have you ever been inside a bank?

Sample: Smallholder farmers, n=2,949.



## Do you have an account/membership in your name with any of the following?

Sample: Smallholder farmers, n=2,949.

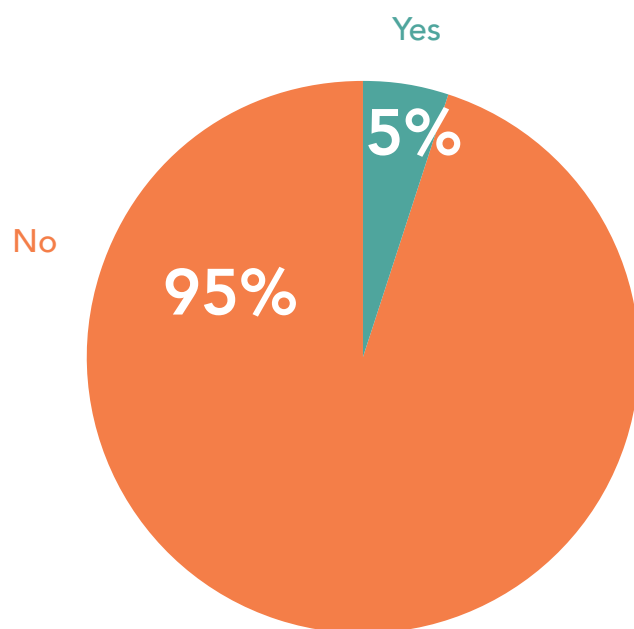


Only 5% have a bank account that is registered in their name. Another 5% have an account at an NBFi. Men are more than twice as likely as women to have a bank account (7% men, vs. 3% women).

# Smallholders think they lack the money to qualify for or sustain a bank account.

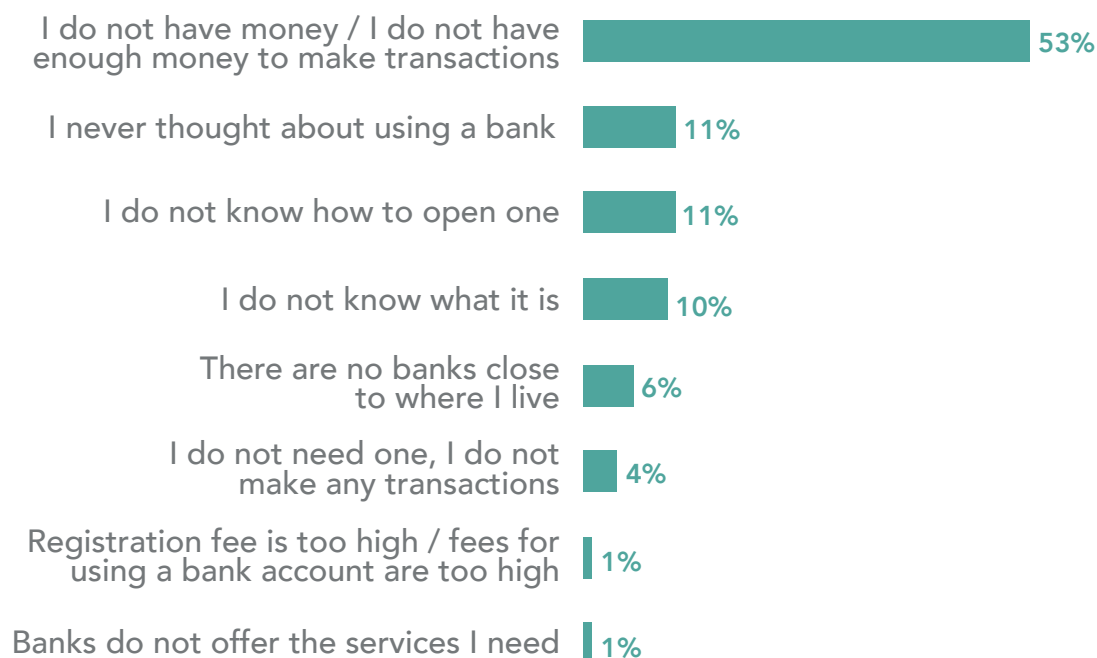
## Do you personally have a bank account that is registered in your name?

Sample: Smallholder farmers, n=2,949.



## What is the main reason you do not have a bank account?

Sample: Smallholder farmers who don't have a bank account, n=2,746.

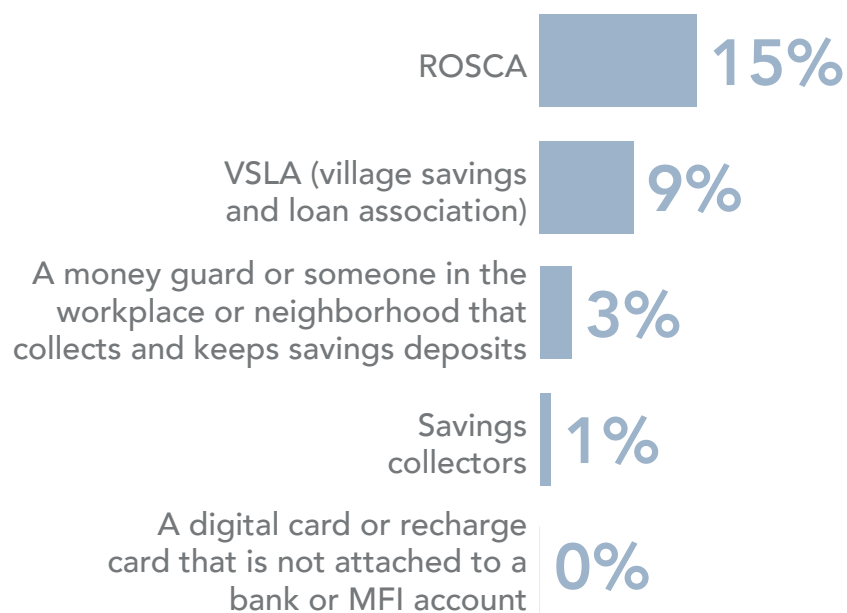


Smallholders also say they do not have a bank account due to their lack of knowledge. More women (15%) than men (7%) "do not know what it is." This implies that women lag partly because they lack knowledge of what a bank account is and does, making it more difficult to even make a judgment on its relevance to their lives.

# Use of informal financial providers is also rare...

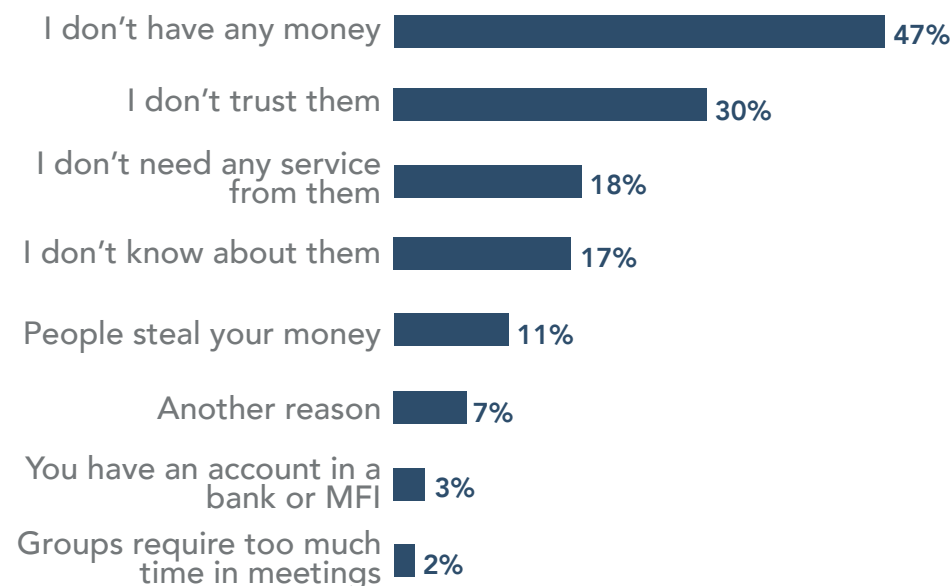
## Have you ever used any of the following?

Sample: Smallholder farmers, n=2,949.



## Why do you not have a membership with any of these groups?

Sample: Smallholder farmers who do not have any membership with an informal financial service provider, n=2,346. Multiple responses allowed.

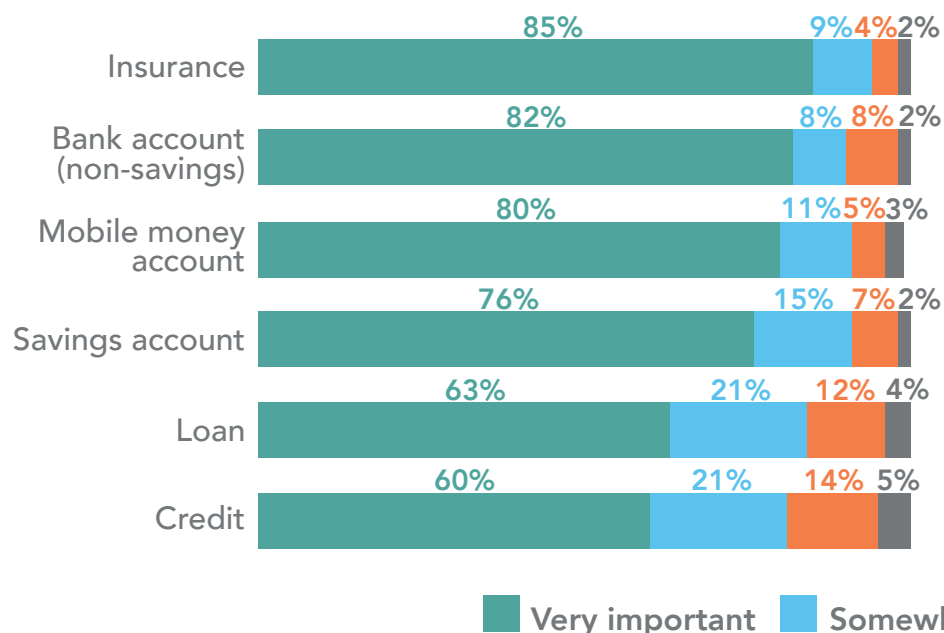


Only 24% of smallholders have ever used an informal financial mechanism. The main reason that smallholders are not members of any informal financial service provider groups is mostly financial. Almost one-third do not trust the groups.

# ...but they perceive the importance of financial services either for the household or for agricultural activities.

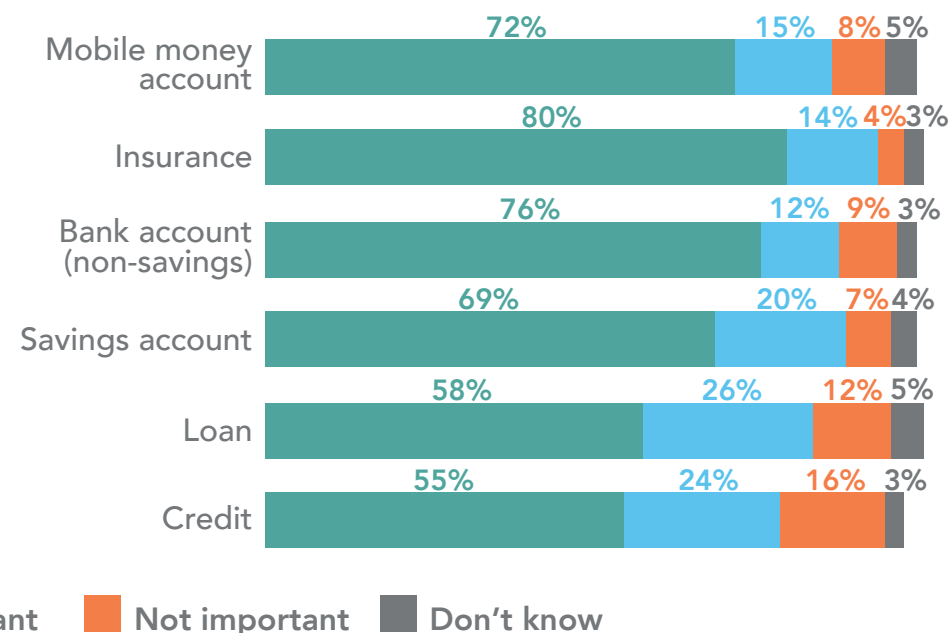
## How important is it to your household to have the following?

Sample: Smallholder farmers, n=3,019.



## How important is it to your agricultural activities to have the following?

Sample: Smallholder farmers, n=2,949.



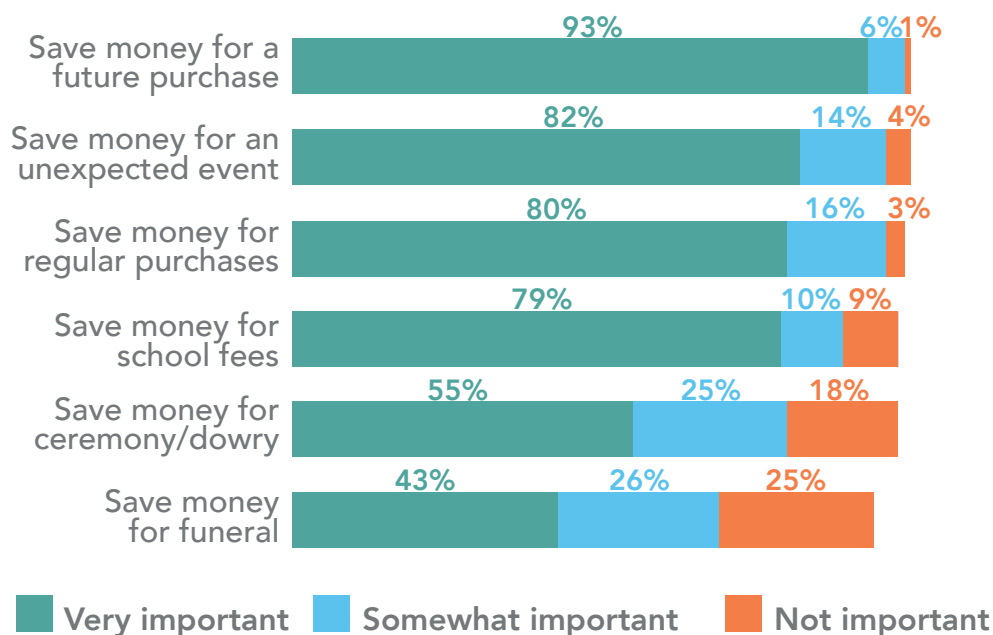
Upwards of eight in ten smallholder farmers say insurance, a bank account (non-savings), and a mobile money account are "very important." Loans and credit are relatively less important, though still highly appealing to the majority. The findings are similar to their perceptions of how relevant these financial products are to their agricultural activities.



# The majority of smallholder farmers feel it is very important to save for a diversity of purposes...

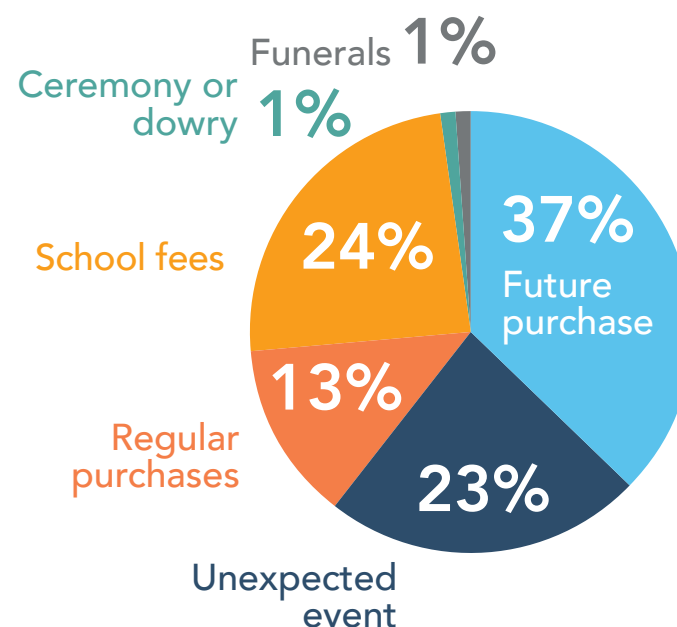
## How important is it for your household to save for each of the following?

Sample: Smallholder farmers, n=2,949.



## Which of the following do you feel your household needs to save for the most?

Sample: Smallholder farmers, n=2,949.

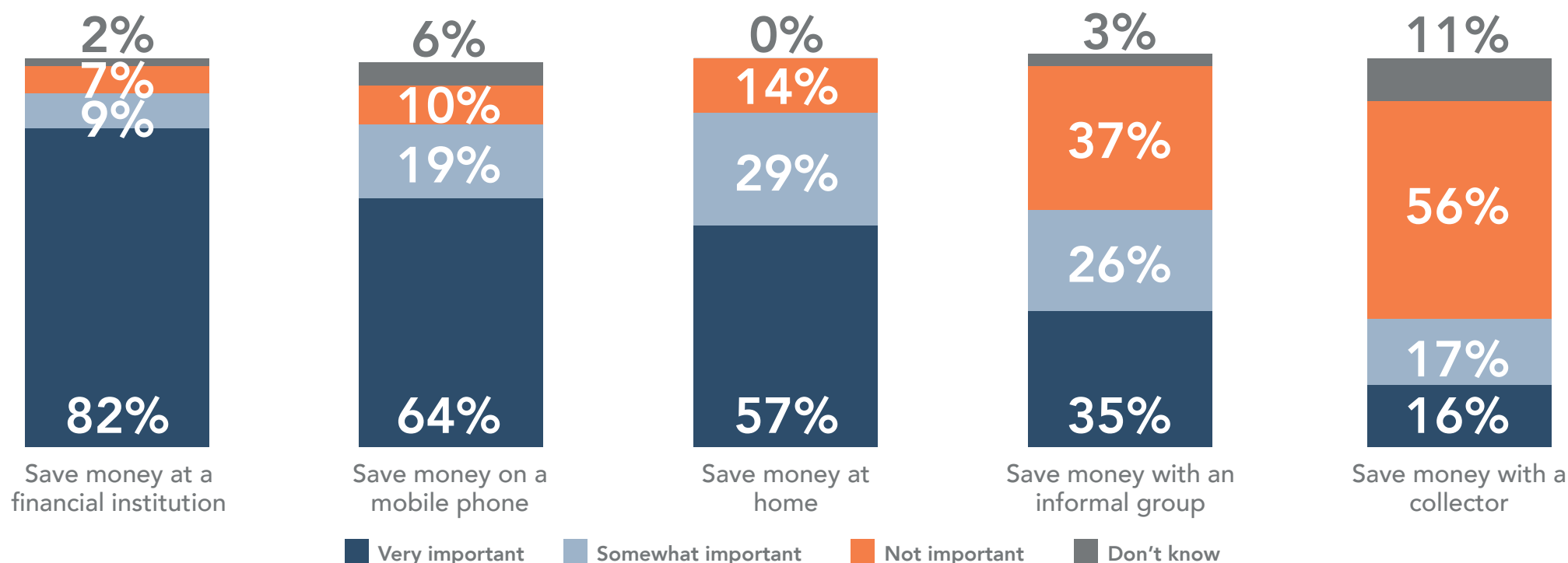


The most important savings needs among smallholders are saving for future purchases, an unexpected event, regular purchases, and school fees.

# ...and believe it is very important to save at a financial institution, and even on a mobile phone.

## How important is it for your household to save at each of the following?

Sample: Smallholder households, n=2,949.

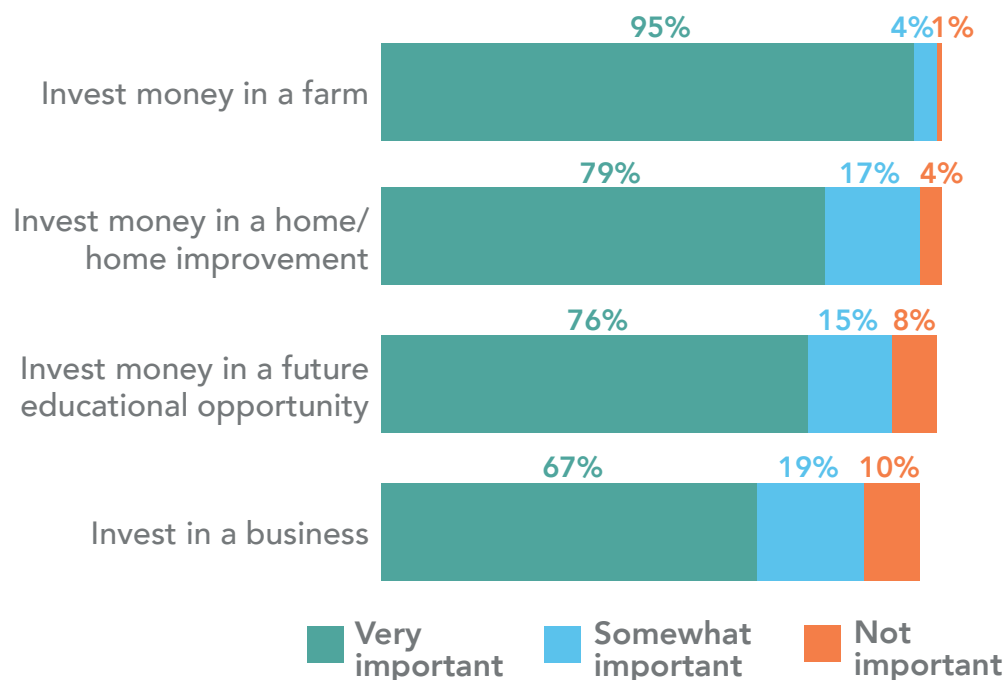


The inherent importance of savings is present for Côte d'Ivoire smallholder farmers, and this represents a great opportunity for formal financial service providers. Saving with an informal group and savings collector received the lowest level of importance.

# Investing in the farm, home, and education are priorities.

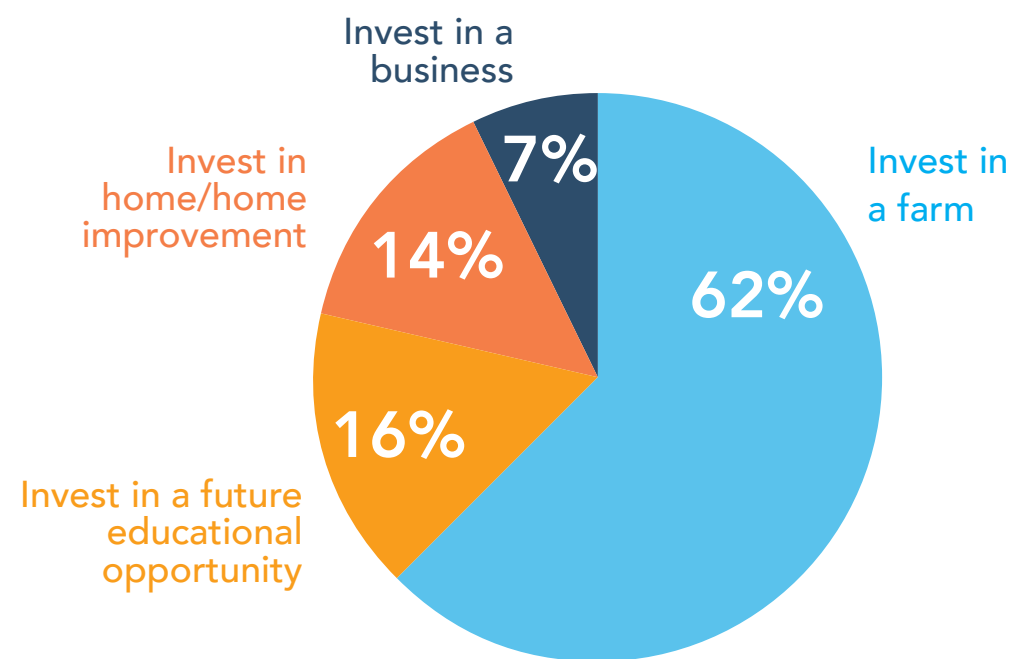
## How important is it for your household to invest in each of the following?

Sample: Smallholder farmers, n=2,949.



## Which of the following do you feel your household needs to do the most?

Sample: Smallholder farmers, n=2,949.

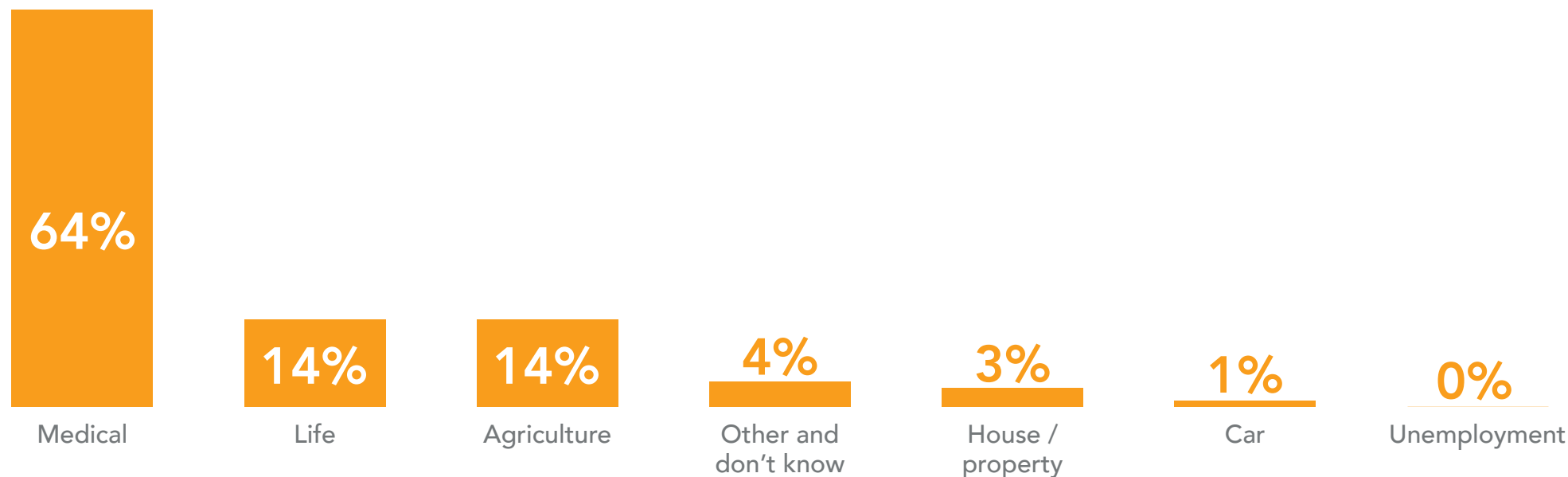


Smallholder farmers place the highest importance on investing in their farms. A strong majority feels it is very important to invest in a future educational opportunity.

# Only 3% of smallholders have insurance, though the majority believe their household needs it.

Which of the following types of insurance do you feel your household needs the most?

Smallholder farmers, n=2,949.

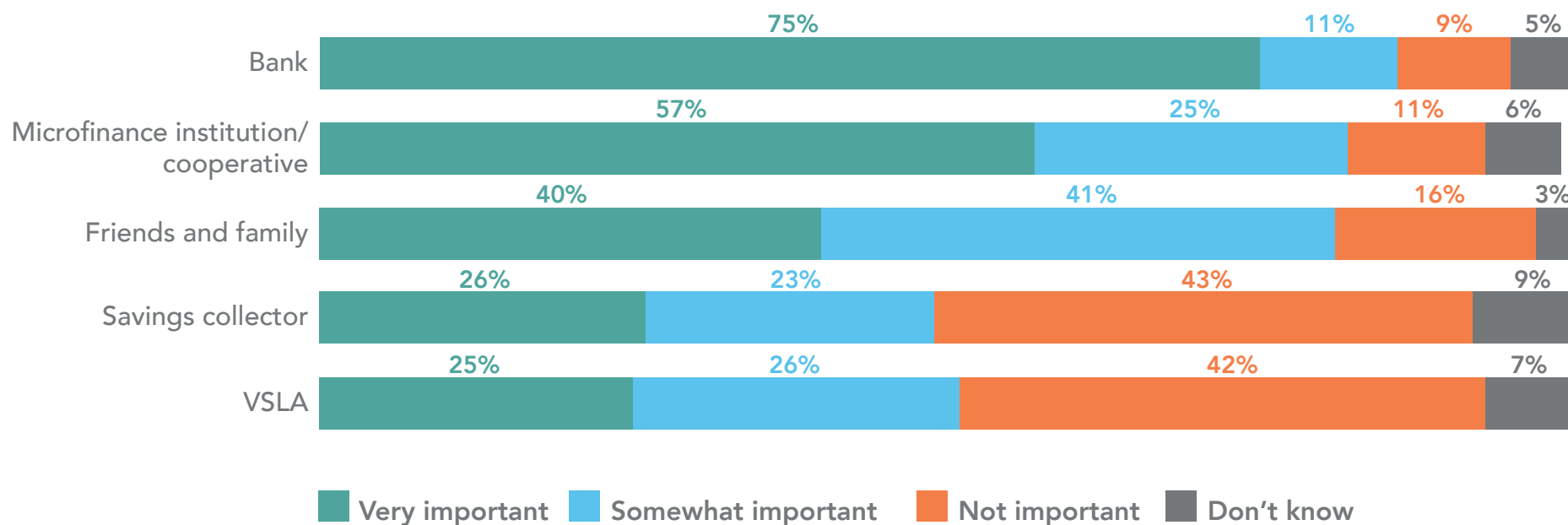


Medical, life, agricultural, house and property insurance are the most desired.

# Smallholder households prefer to borrow from banks but lack critical factors.

For your agricultural activities, how important to you is it to borrow from each of the following?

Sample: Smallholder farmers, n=2,949.



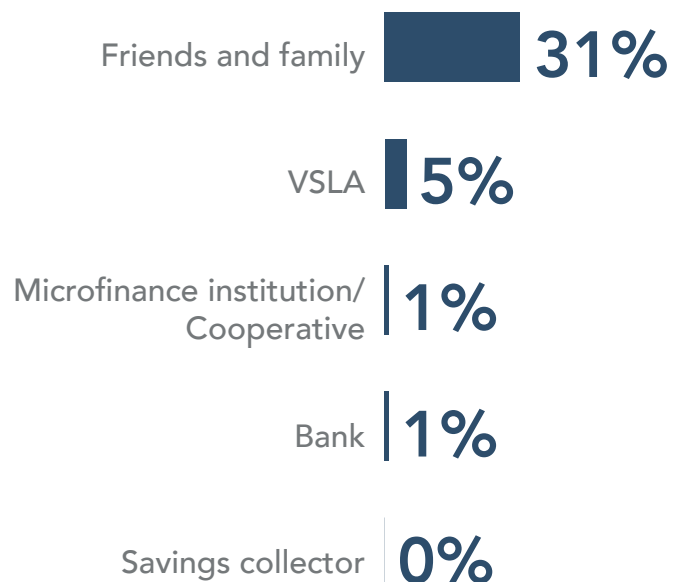
Smallholder farmers see the importance of borrowing from formal institutions versus from family and friends.



# These stated preferences do not translate into habits. Most first approach friends and family to borrow.

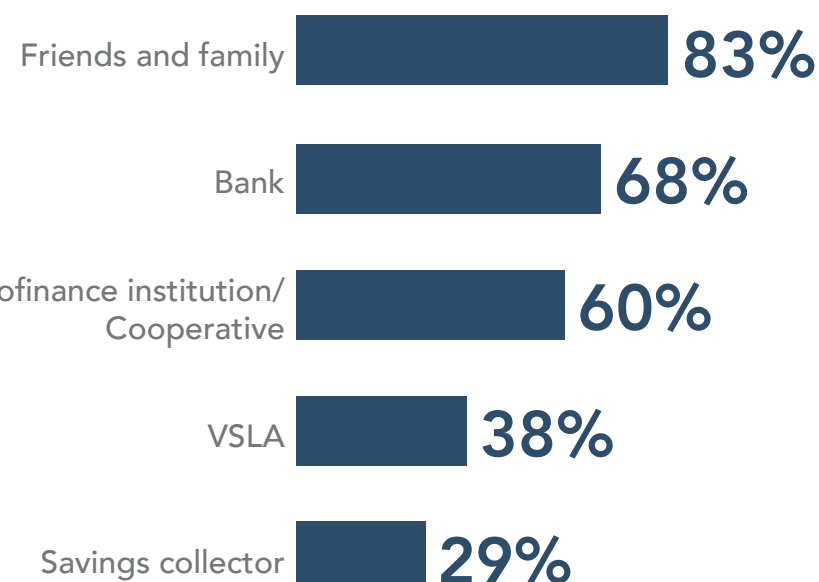
**In the past 12 months, have you attempted to borrow from any of the following?**

Yes answers. Sample: Smallholder farmers, n=2,949.



**If the need arose, would you attempt to borrow from any of the following?**

Yes answers. Sample: Smallholder farmers, n=2,949.

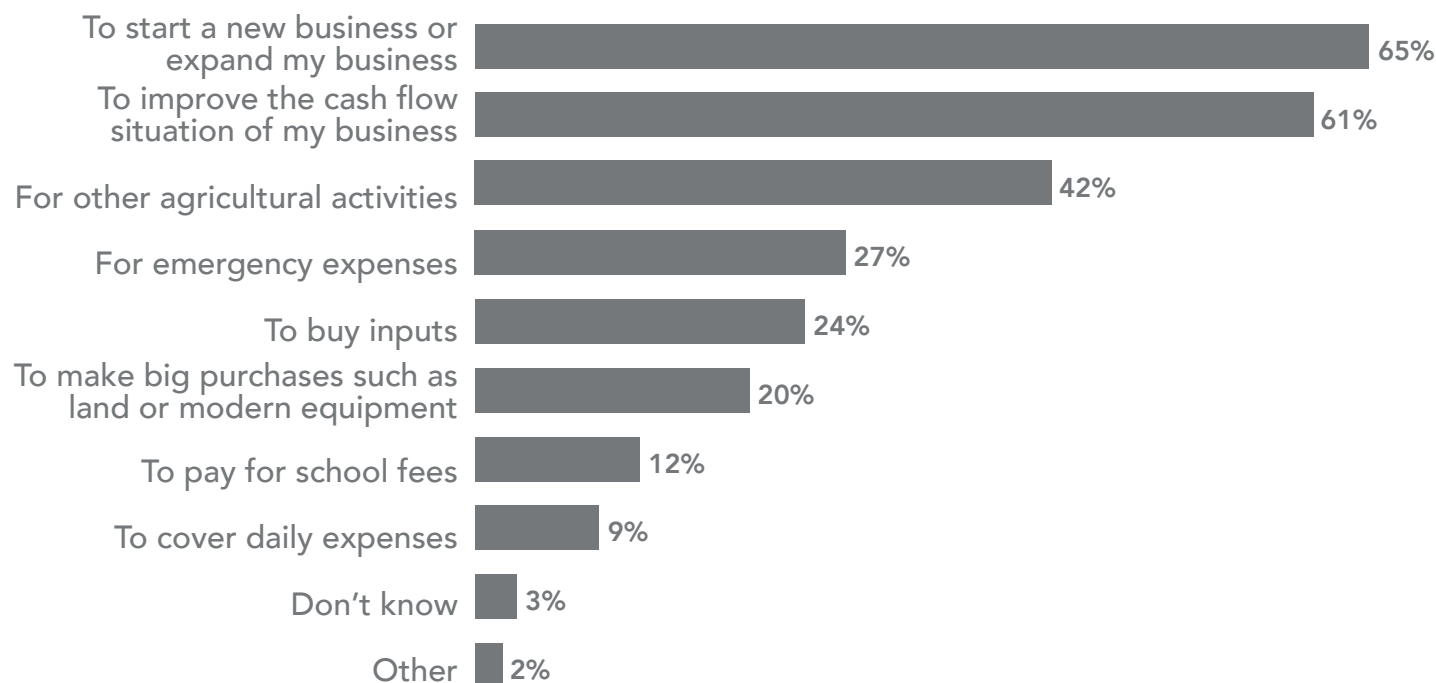


Conversely, only 1% have borrowed from banks recently, which coincides with the 5% of smallholders who have a bank account. Despite that, most would like to borrow from banks in the future. This also may highlight the lack of physical presence of formal financial institutions and the barriers to accessing a loan.

# The main reasons for potential borrowing are linked to their business or agricultural activities.

## What would be the main reasons for borrowing money?

Sample: Smallholder farmers, n=2,949. Multiple responses allowed.

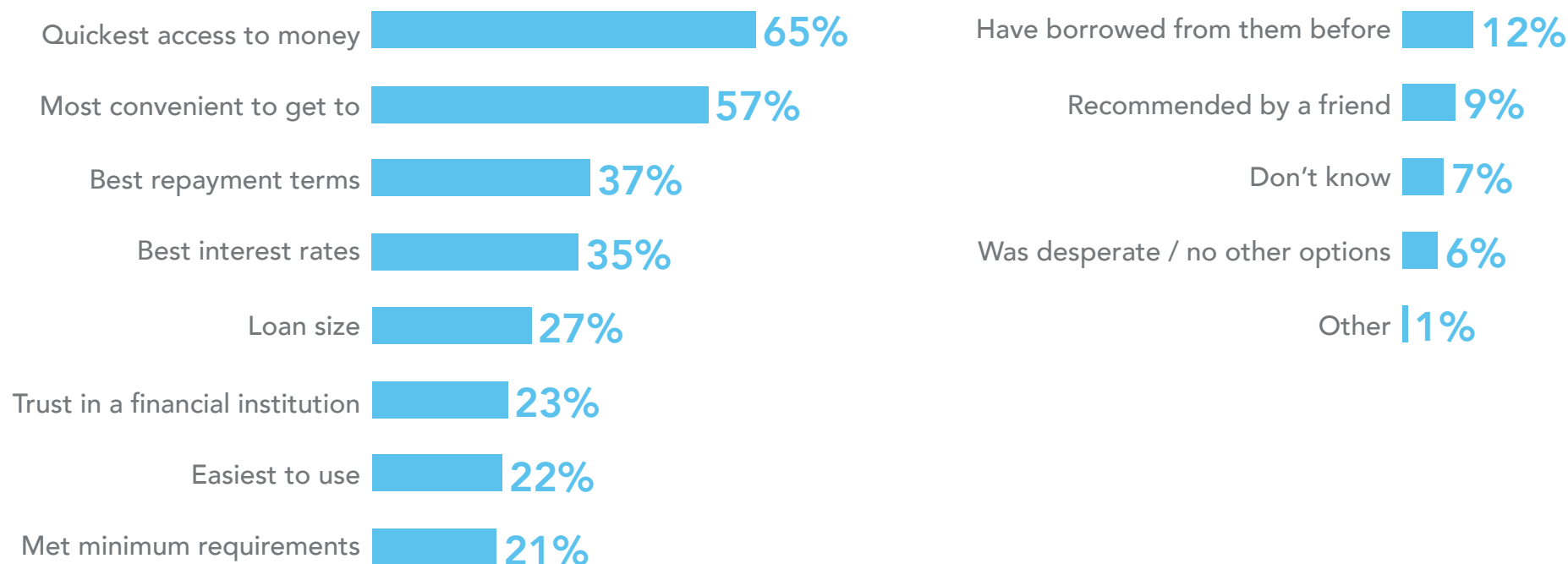


Only 4% of smallholder farmers have a loan, but 65% would be interested in borrowing to start or extend a new business and 61% to improve the cash flow of their business.

# Some conditions would be necessary for the use of formal financial services by smallholders.

## What factors would you consider when you want to borrow money?

Sample: Smallholder farmers, n=2,949. Multiple responses allowed.

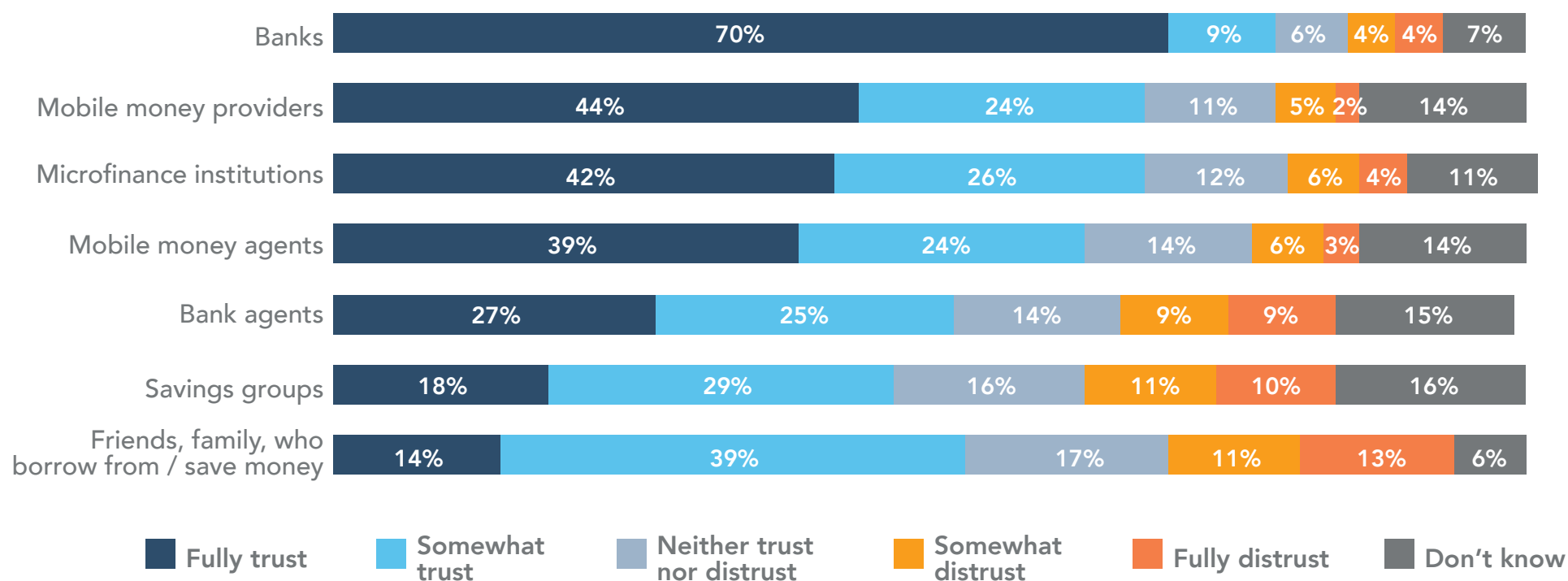


Smallholder farmers consider quick access, convenience, repayment terms, interest rates and the amount of money that can be borrowed as important factors when they need to borrow money.

# Combined with the desire to access formal financial services, the trust in banks offers them a great opportunity.

## How much do you trust each of the following as financial sources?

Sample: Smallholder farmers, n=2,949.



Seven in ten smallholders in Côte d'Ivoire "fully trust" banks. Mobile money providers (44%) and MFIs (42%) also receive relatively high levels of trust.

# What does the data teach us?

**Smallholders farmers in Côte d'Ivoire are largely excluded from traditional formal financial institutions. But their desire to access financial services is high.**

- The solid level of trust in financial institutions is a strong foundation for building financial inclusion among smallholder farmers.
- Smallholder farmers have diverse needs and engage in more than their agricultural activities. This represents a great opportunity for financial service providers to design relevant services adapted to this diverse range of needs. Targeted efforts are needed to increase the knowledge of smallholders, particularly women, on financial institutions.
- Savings products could be a good entry point to target smallholders.





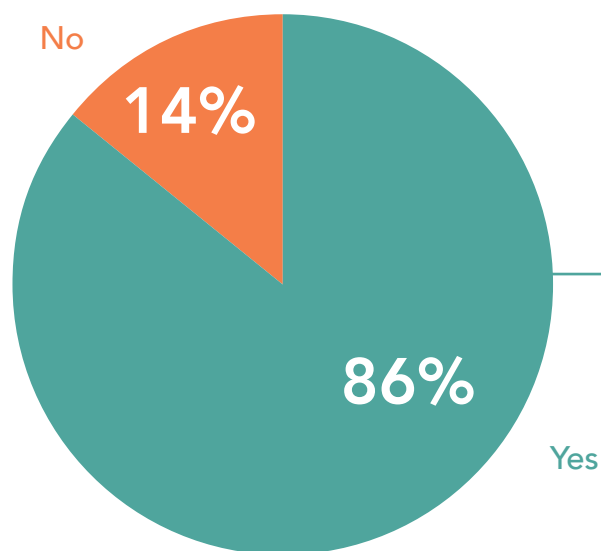
# 6

## Mobile phones and mobile money

# Most smallholder farmers in Côte d'Ivoire use a basic mobile phone.

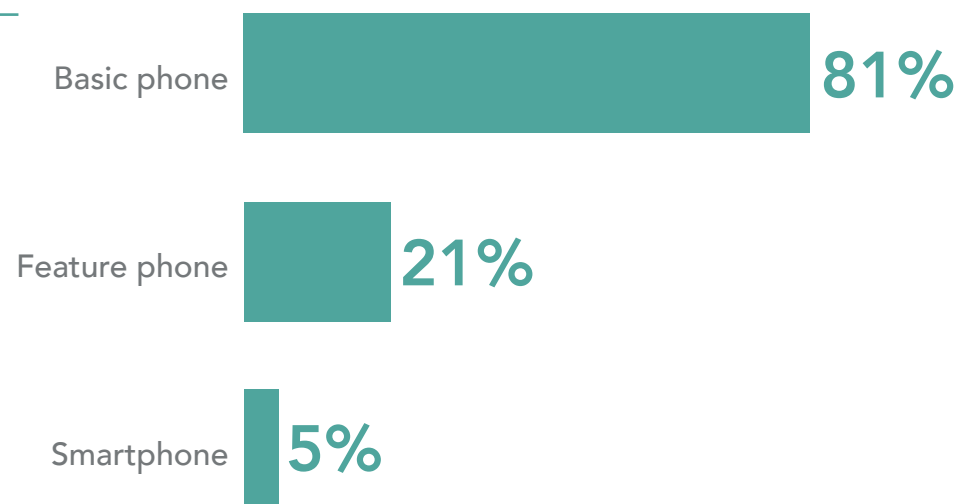
## Have you ever used a mobile phone?

Sample: Smallholder farmers, n=2,949.



## What type of phone have you used?

Sample: Smallholder farmers who have ever used a mobile phone, n=2,564.

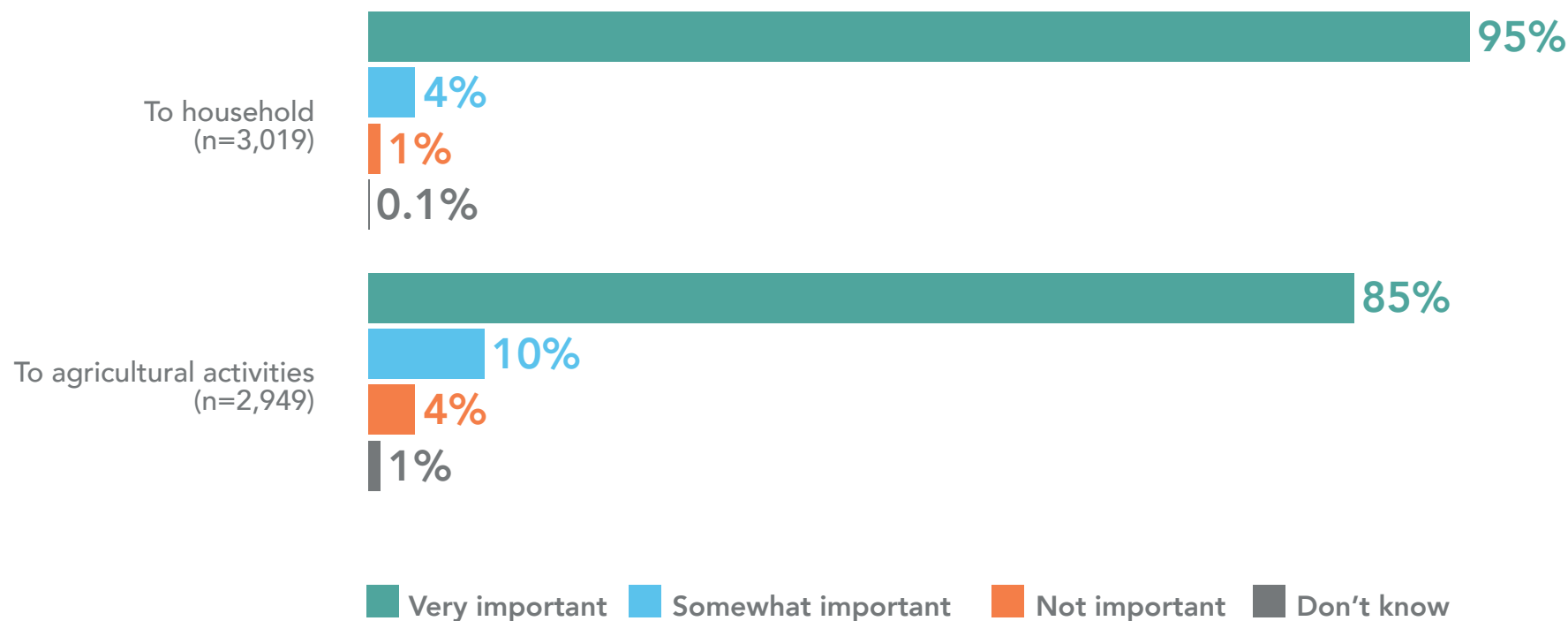


The vast majority of men and women (89% and 80%, respectively) have their own mobile phone, though a nine-point gap in phone ownership persists.

# They recognize the relevance of mobile phones to the household and their agricultural activities.

Regardless of the phone you have, how important is it to your household/agricultural activities to have a mobile phone?

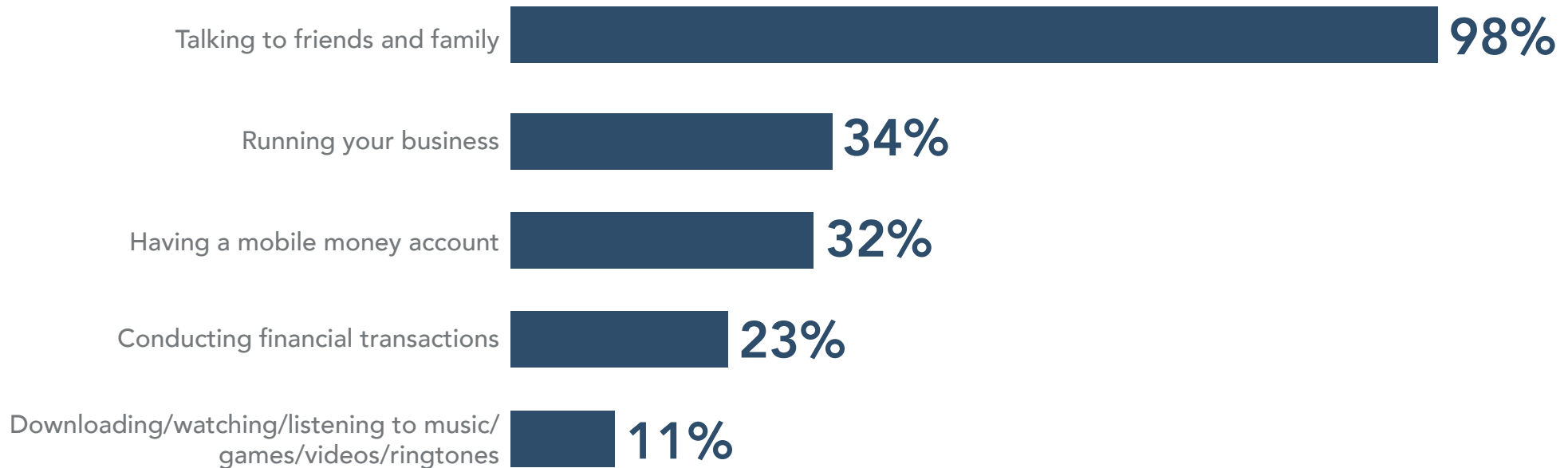
Sample: Smallholder households, n=3,019; Smallholder farmers, n=2,949.



# While important to their household and agricultural activities, smallholders see a mobile phone largely as a way to communicate with friends and family.

## What are the benefits to having your own mobile phone or SIM card?

Sample: Smallholder farmers who have ever used a mobile phone, n=2,564. Multiple responses allowed.

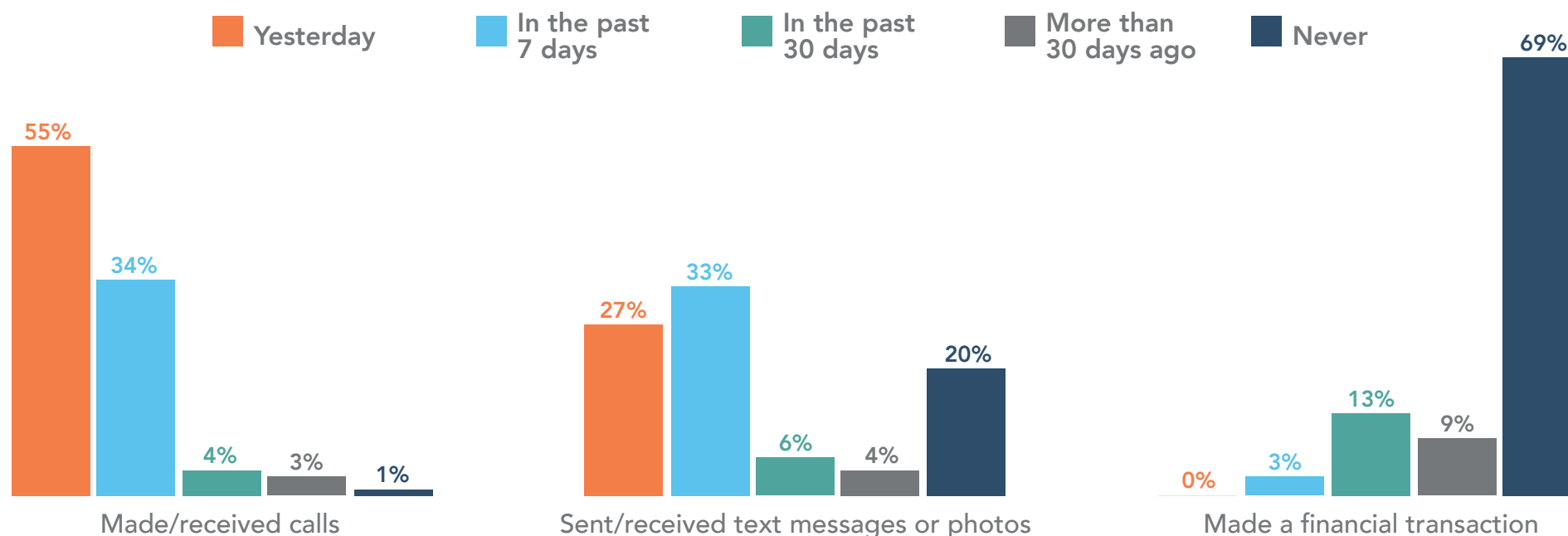


Running their businesses and accessing a mobile money account are second-tier benefits to having a mobile phone.

# Smallholders with mobile phones typically use them to make and receive calls, or send and receive texts...

Apart from today, when was the last time you performed the following activities on the mobile phone you use?

Sample: Smallholder farmers who currently own a phone or borrow or pay to use a mobile phone, n=2,392.



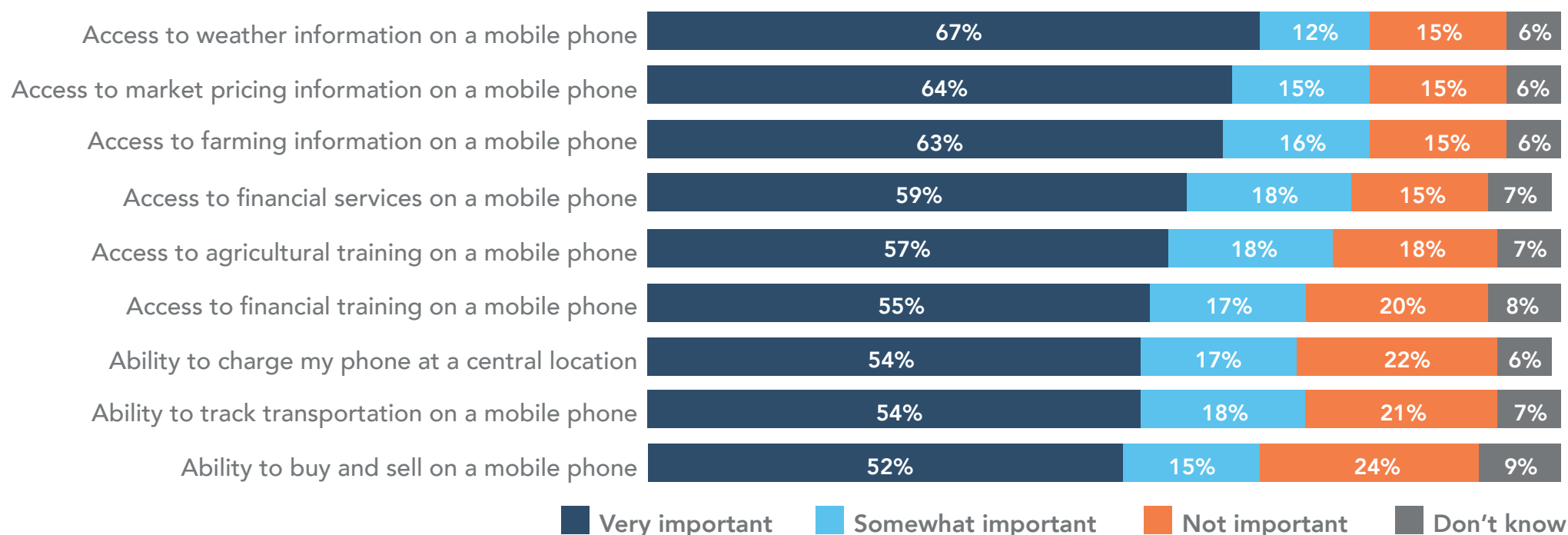
Among farmers, phones are used less frequently for making financial transactions.



# ...but mobile products generate interest.

## How important are the following abilities to your household's agricultural activities?

Sample: Smallholder farmers, n=2,949.

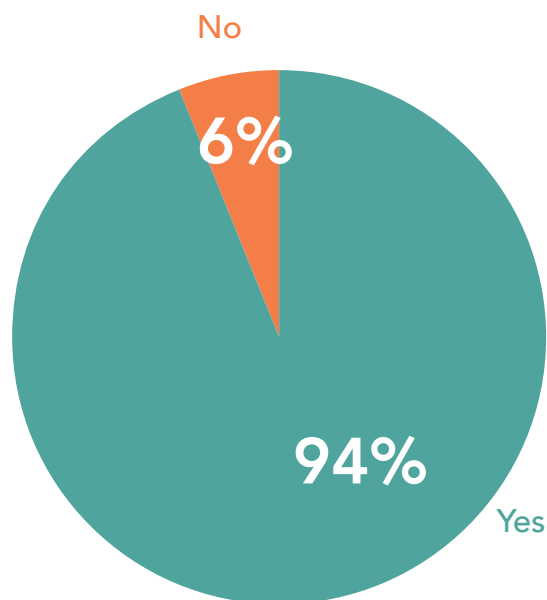


Smallholders can see the importance of leveraging their mobile phone as a tool for agricultural activities. Close to seven in ten say the ability to access weather information would be very important. More than six in ten say access to market prices, farming information, financial services, and agriculture and financial training would be very important.

# Awareness and perceived benefits of mobile money are high.

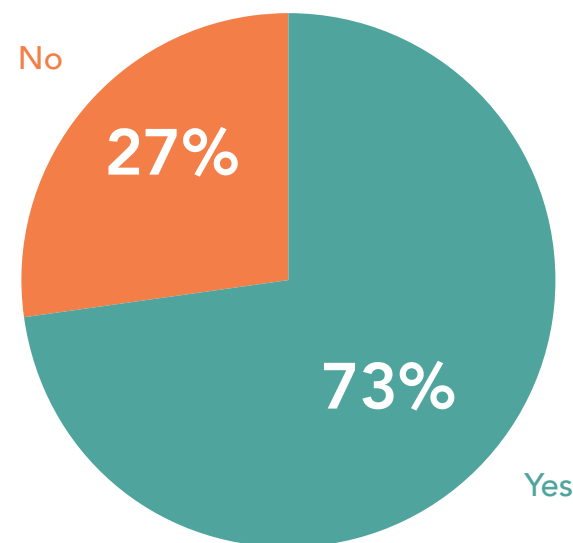
## Have you ever heard of something called mobile money?

Sample: Smallholder farmers, n=2,949.



## Are there benefits to having a mobile money account?

Sample: Smallholder farmers who are aware of mobile money concept, n=2,189.

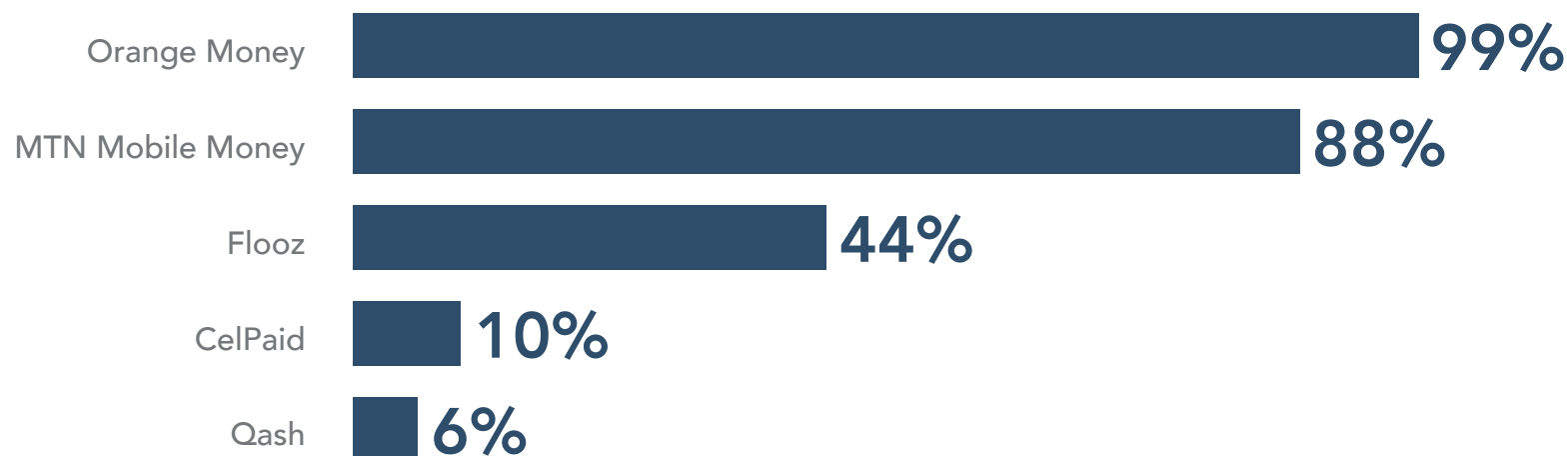


Mobile money is a concept that has some initial meaning and relevance to smallholders. This is positive for building greater access to digital financial services.

# Awareness of Orange and MTN Mobile Money is high.

## Please tell me the names of any mobile money providers that you are aware of?

By overall awareness and awareness of mobile money concept. Sample: Smallholder farmers who are aware of mobile money, n=2,189.  
Multiple responses allowed.

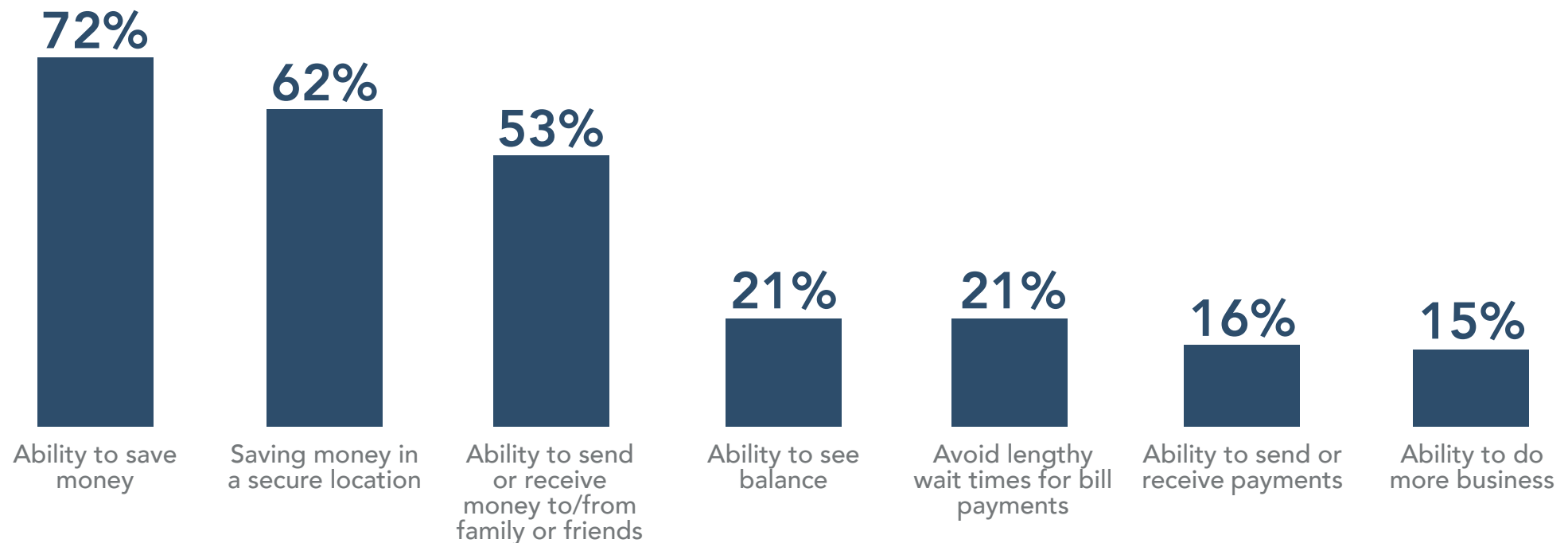


And over four in ten (44%) are also aware of Flooz (Moov mobile money).

# Smallholders see the ability to save money and make person-to-person transfers as the core benefits of mobile money.

## What are the benefits to having a mobile money account?

Sample: Smallholder farmers who believe there are benefits to having a mobile money account, n=2,043. Multiple responses allowed.

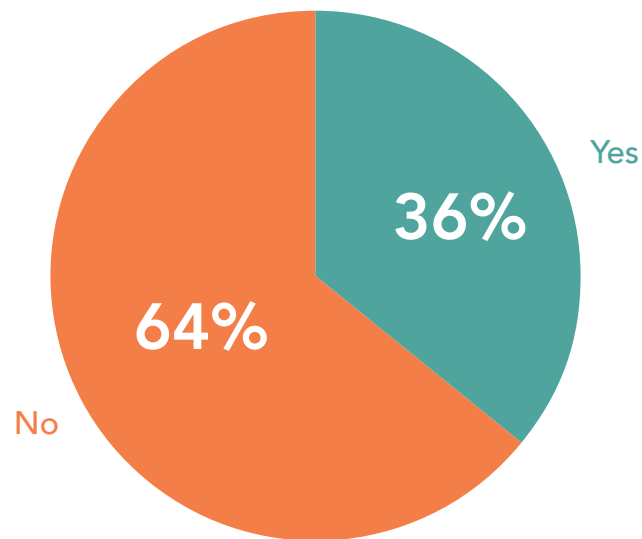


Smallholders see the main benefit of a mobile money account as another way to save money. This is highly desirable, given the interest of smallholders in savings and their tendency to set money aside.

# Mobile money usage among smallholders is encouraging and far higher than usage of bank or NBFI accounts.

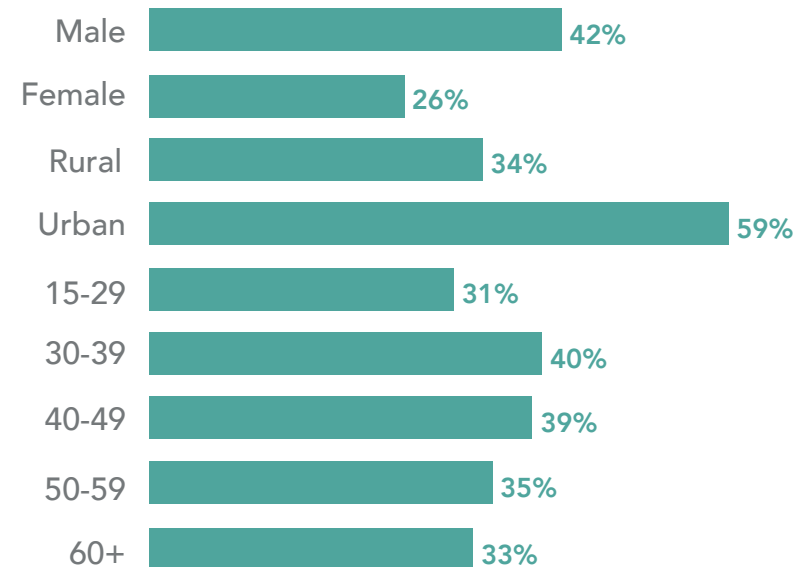
## Have you ever used a mobile money provider for any financial activity?

Sample: Smallholder farmers, n=2,949.



## Have you ever used a mobile money provider for any financial activity?

Yes answers by gender, region and age. Sample: Smallholder farmers, n=2,949.

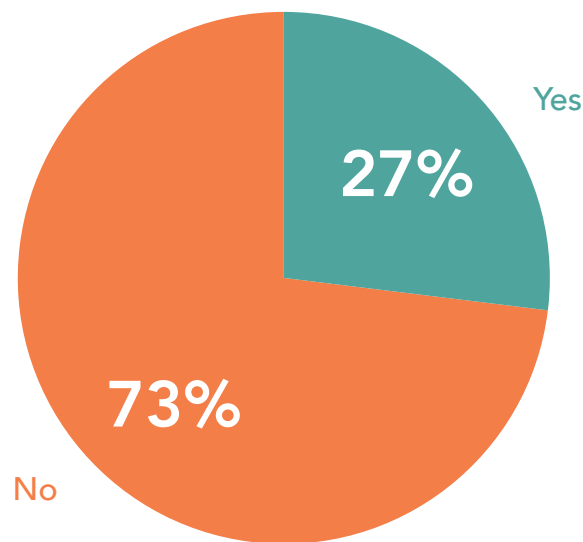


Nearly four in ten (36%) smallholder farmers in Côte d'Ivoire have used mobile money in the past to conduct a financial activity. Access to mobile money is mostly among males in urban areas. Females and those in rural areas show relatively less usage of mobile money for financial services. Smallholders between 30 and 49 are most likely to have used mobile money for a financial activity.

# Most of those who have used mobile money ultimately get a registered account.

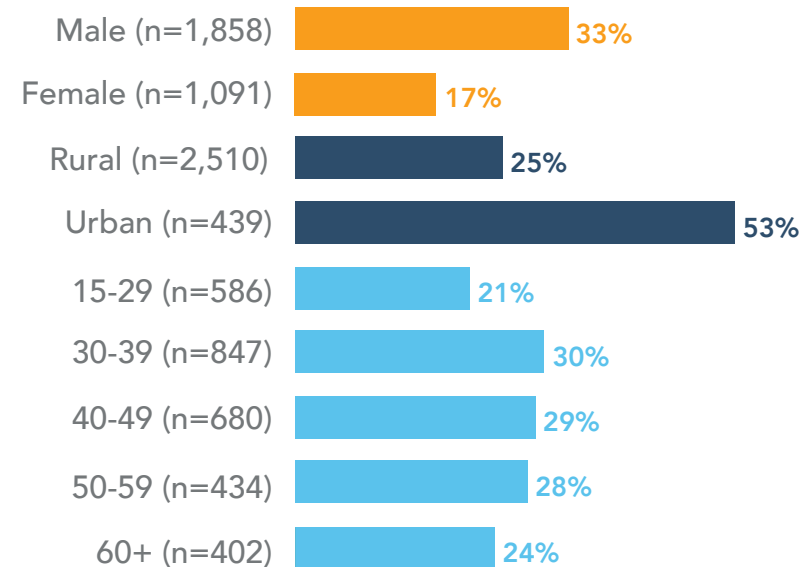
## Do you have a registered account with a mobile money provider?

Sample: Smallholder farmers, n=2,949.



## Do you have a registered account with a mobile money provider?

Yes answers by gender, region and age.

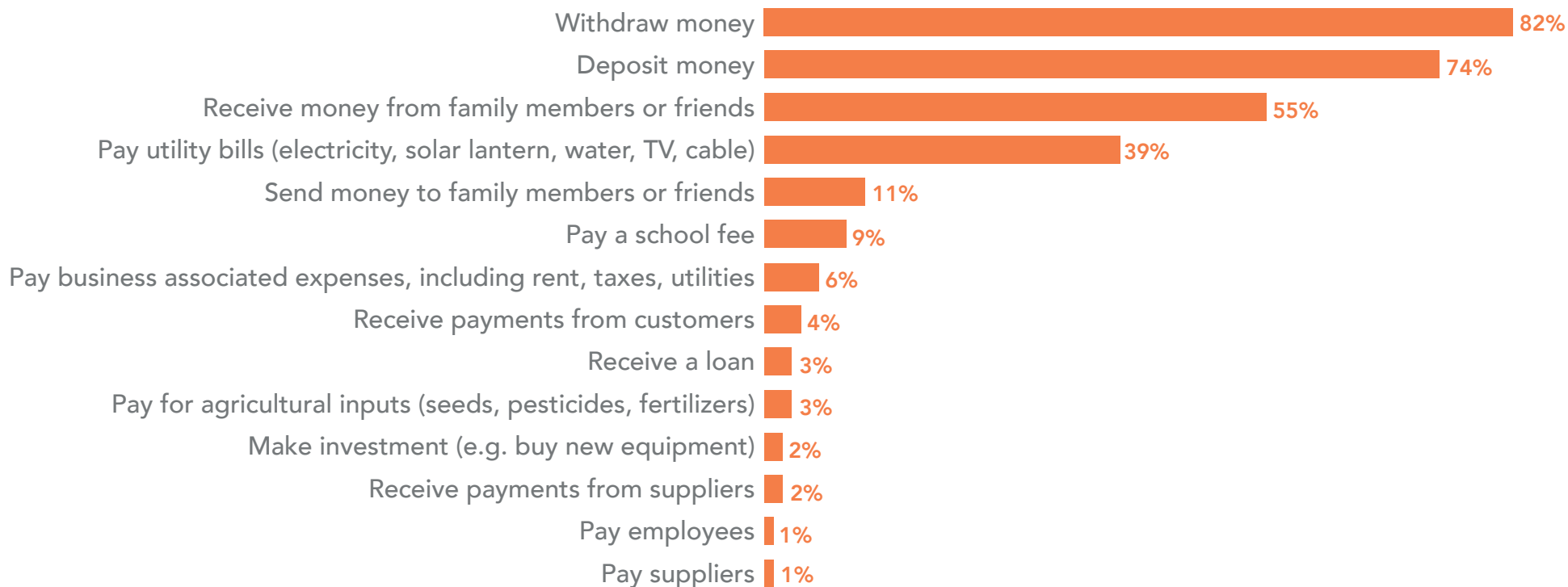


36% of adults have used mobile money and 27% of smallholder farmers in Côte d'Ivoire report having a registered account with a mobile money provider. There is a 16-point gap between male and female smallholders when it comes to mobile money account ownership.

# Advanced use among mobile money users is minimal among smallholders.

## Have you ever used mobile money to...?

Sample: Smallholder farmers who have ever used mobile money, n=1,124. Multiple responses allowed.



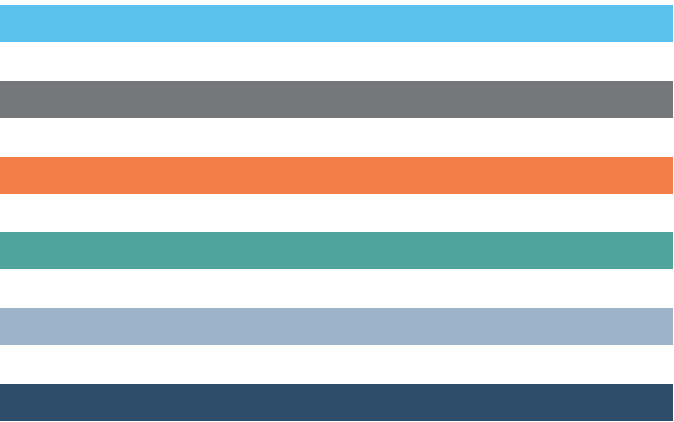
Fewer than one in ten are paying school fees via mobile money. Even fewer smallholders pay business expenses or receive payments.



# What does the data teach us?

**Mobile phone ownership and mobile money awareness are high among smallholder farmers in Côte d'Ivoire. This represents a great opportunity to advance financial inclusion through digital financial services.**

- The widespread recognized importance of mobile phones means that smallholders do not need to be convinced that a mobile phone can be an asset to their home or farm. It is, however, important to sensitize farmers to the connection between their mobile phones or SIM cards and financial transactions and agricultural activities.
- 81% of smallholders own a basic phone. Any digital solution that targets smallholders must take this into consideration and focus on developing solutions using the USSD channel.
- There is a gap between men and women in mobile phone ownership and mobile money awareness that needs special attention.



# 7 Segmentation



# Smallholder households are not homogeneous.

## Four key variables driving financial inclusion among smallholder households

1. Educational attainment of head of household

2. Socioeconomic status or PPI of head of household

3. Access to emergency funds

4. Mobile phone ownership

### EDUCATION

**25%**  
completed primary

**15%**  
secondary or more

### POVERTY LEVEL

**21%**  
above \$2.50 ppi

**79%**  
below \$2.50 ppi

### ACCESS TO EMERGENCY FUNDS

**28%**  
very possible

**36%**  
not possible

**33%**  
somewhat possible

**3%**  
unsure

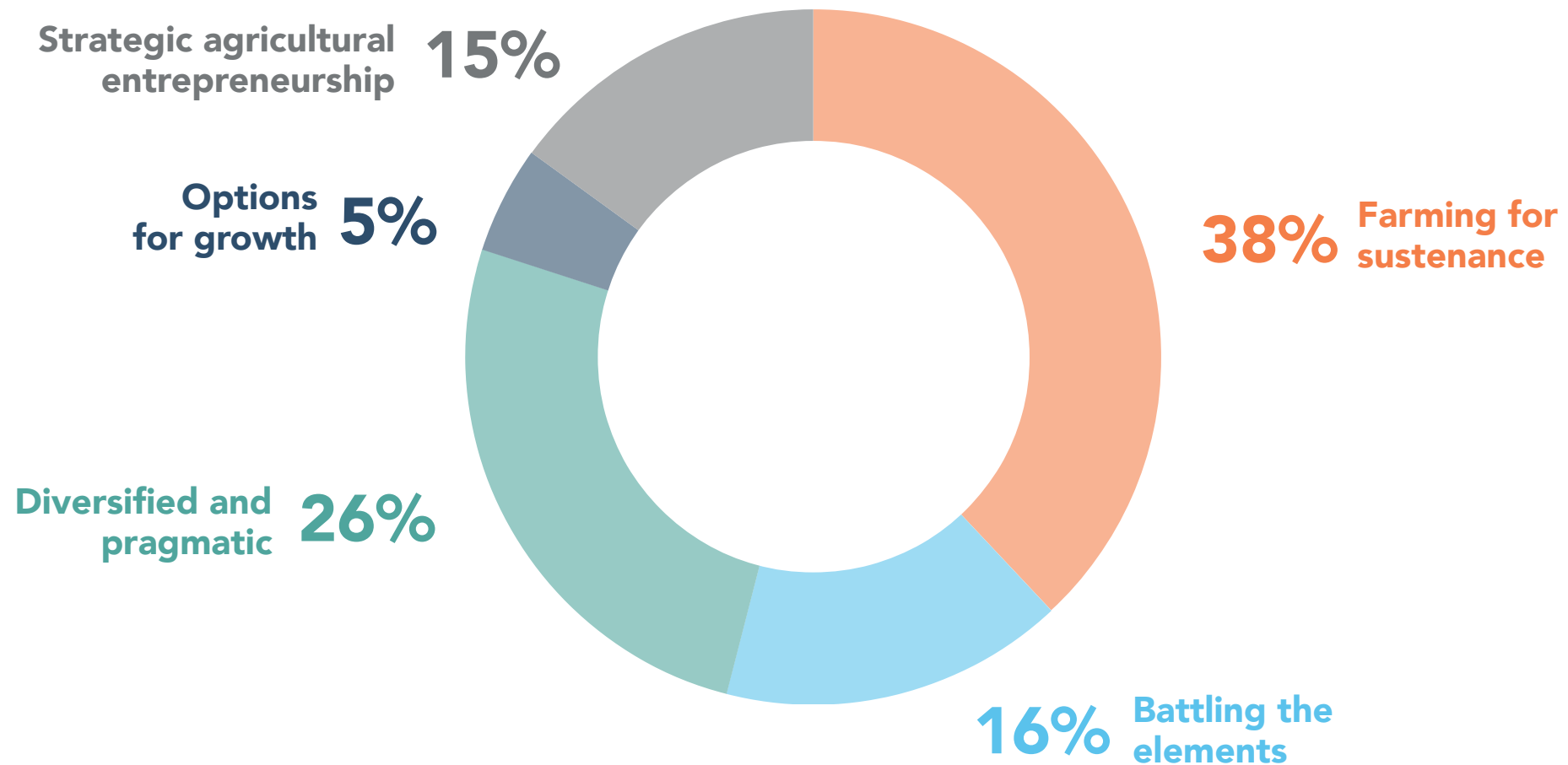
### MOBILE PHONE OWNERSHIP

**94%**  
have at least one mobile phone in their household

# Five segments of smallholder households in Côte d'Ivoire

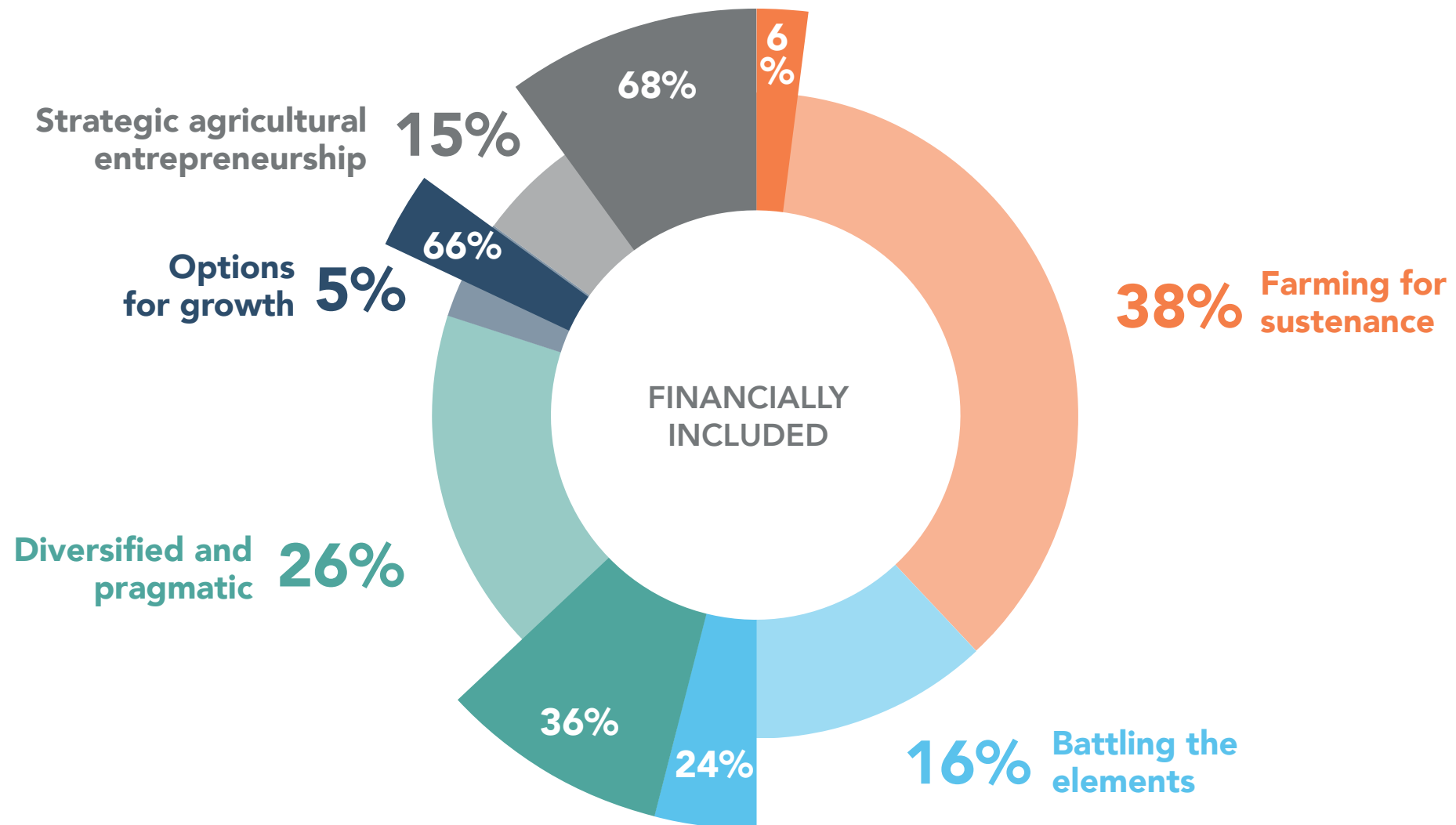
Farming for sustenance	Battling the elements	Diversified and pragmatic	Options for growth	Strategic agricultural entrepreneurship
<ul style="list-style-type: none"> <li>• Everyday quintessential farming household that struggles to support its needs</li> </ul>	<ul style="list-style-type: none"> <li>• Persevered through harsh agricultural challenges and remain optimistic toward farming</li> </ul>	<ul style="list-style-type: none"> <li>• The realities would lead them to diversify out of something they enjoy if given the choice</li> </ul>	<ul style="list-style-type: none"> <li>• Stable, optimistic for the future and have options for the future within and outside of farming</li> </ul>	<ul style="list-style-type: none"> <li>• Actively engaged in agriculture, and growing their agricultural activities</li> </ul>
Stands to gain the most from financial and agricultural mechanisms	Financial mechanisms have enabled some of their perseverance	Embody the realism and inner conflict that can characterize households	Could pivot into or out of farming depending on opportunities	Model or "use case" for inspiring growth in other segments

# Five segments of smallholder households in Côte d'Ivoire



# Five segments of smallholder households in Côte d'Ivoire

*Percentage of segments financially included*



# Farming for sustenance

- The “**Farming for sustenance**” group represents the largest segment in Côte d’Ivoire (**38%** of smallholder farmers).
- It represents the most vulnerable farming households, indexes very low on the Progress out of Poverty Index, shows a high number of years in farming, and its members generally want their children to continue in agriculture, though they themselves could be interested in full-time, off-farm employment.
- Members of this segment truly do survive on what the farm produces, consuming, selling or trading their agricultural outputs without much else to sustain their households.

This segment stands to gain the most from financial and agricultural mechanisms that can facilitate its smallholders’ daily labor and mitigate the range of risks they face. Safety net programs would help to build resilience and support livelihoods among smallholders in this segment.



# Battling the elements

- The “**Battling the elements**” group is also a vulnerable group and the third largest segment in Côte d’Ivoire, comprising **16%** of smallholder farming households.
- A greater portion of this segment generates income from agriculture, and has also multiple other income sources.
- This segment has better access to emergency funds, but is challenged by unexpected life or farm-related events.
- The smallholders in this group are proactive and more of them take action to alleviate the losses resulting from unexpected events. They also perceive insurance as very important to agricultural activities. Challenges have not dampened their future aspirations or dissuaded them from working hard.

The exposure of this group to financial mechanisms might make them the group that best understands the value of having access to savings and insurance products to better manage unexpected events.

# Diversified and pragmatic

- The “**Diversified and pragmatic**” group represents the second largest segment in Côte d’Ivoire (26% of smallholder farmers).
- It includes young adults who are less tenured in agriculture and more likely to find opportunities to leave the sector.
- Their experience has conditioned them to take a more pragmatic approach to farming.
- They tend to diversify income sources and plan for the unexpected. Though they enjoy and take pride in farming, they would also consider full-time employment outside of agriculture if the opportunity presented itself.

More than a third of this segment is financially included. There is an opportunity to foster more advanced use of mobile money, as these individuals already have accounts and are using them.

# Options for growth

- The “**Options for growth**” segment stands out because of its high level of financial inclusion and it is dominated by more tenured smallholder farmers. With **5%** of smallholder farmers, it is the smallest of all five segments.
- Farmers in this group see their future in agriculture, are more empowered, derive enjoyment from agriculture, and are keen to expand their agricultural activities.
- They have greater access to financial tools and external support.

With close to two-thirds of this segment financially included, members of this group show that smallholder households can put their livelihoods on a path toward greater stability and growth.

# Strategic agricultural entrepreneurship

- The “**Strategic agricultural entrepreneurship**” segment includes **15%** of Ivoirian’s smallholder households.
- They are more enabled and resilient than the other segments, have a higher income, more education, greater access to emergency funds, and access to more financial mechanisms.
- They have been impacted by the realities of farming, but have been able to rely upon their savings or other resources to get through tough times.
- They enjoy agriculture and want to expand their agricultural activities but most of them are not satisfied with what their agricultural work has achieved, reporting the most dissatisfaction among all the segments.

This is a group that can be a model, or a use-case for carrying meaningful messages or examples for growth to other smallholder segments.



Photo by Corinne Riquet / CGAP

## IMPLICATIONS

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# Financial service providers – Banks, MFIs and MNOs

The trust smallholder farmers have in formal financial institutions and their demand for formal financial services represent a great opportunity. Formal financial services providers can:

- Design and deploy the most desired products among smallholders: payment or credit plans for inputs and school fees. These two desires can be a catalyst to provide tailored financial services and act as a point of entry to increase levels of financial inclusion. Specific attention should be given to women.
- Explore the best options to deliver financial services through alternative delivery channels in order to provide proximity and a sustainable business model.
- Drive financial inclusion among smallholders through the use of mobile money, building on their high mobile phone ownership. The use of mobile money to deliver savings, credit and insurance products would require partnerships among different categories of providers.
- Cultivate strategic alliances with stakeholders in financial services, agricultural input sellers and commodity buyers, and government partners.

# Government

**The Government has a critical role to play in support of financial inclusion among smallholders in Côte d'Ivoire. It can:**

- Support the development of formal channels to communicate new and relevant information to smallholder farmers related to their agricultural activities and financial services.
- Implement appropriate and tailored financial education efforts to contribute to the growing use of financial services and an increase in the financial well-being of smallholder farmers.
- Build infrastructure to allow smallholder farmers better access to network services and other utilities, and address some of the fears constraining the use of mobile phones and mobile money. In addition, increased connectivity and high security will build trust and acceptance of financial services transactions among farmers.



# Donors

**Donors have a catalytic role to play by supporting innovation to target smallholder farmers. They can:**

- Support formal financial institutions to adopt alternative delivery channel like mobile channels or agency banking, and to develop sustainable business models to partner with MNOs.
- Support the digitization of agricultural value chains and help build the surrounding ecosystem that favors the adoption of mobile money.
- Support the design of financial services and products tailored to the diverse segments of smallholder households, with particular attention to the needs and barriers of women smallholders.
- Support the government to design and deploy awareness and financial education campaigns.



## RESOURCES

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# Resources

## National Surveys and Segmentations of Smallholder Households:

Bangladesh:

[Paper](#) | [User Guide](#) | [Data](#)

Nigeria:

[Paper](#) | [User Guide](#) | [Data](#)

Uganda:

[Paper](#) | [User Guide](#) | [Data](#)

Tanzania:

[Paper](#) | [User Guide](#) | [Data](#)

Mozambique:

Paper: [Pt](#) [En](#) | User Guide: [Pt](#) [En](#) | [Data](#)

Côte d'Ivoire:

Paper: [Fr](#) [En](#) | User Guide: [Fr](#) [En](#) | [Data](#)

## Financial Diaries with Smallholder Households

[Executive summary](#)

[Full paper](#)

[User Guide](#)

[Video](#)

[Data](#)

Tanzania: [Data](#)

Mozambique: [Data](#)

Pakistan: [Data](#)

[Designing Digital Financial Services for Smallholder Families: Lessons from Zimbabwe, Senegal, Rwanda, and Cambodia](#)

[Segmentation of Smallholder Households:](#)

[Meeting the Range of Financial Needs in Agricultural Families](#)

[Serving Smallholder Farmers: Recent Developments in Digital Finance](#)

[Digitizing Value Chain Finance for Smallholder Farmers](#)

[Smallholder Households: Understanding Demand, Driving Innovation](#)

# CGAP Contacts

## Financial Innovation for Smallholder Households

**Corinne Riquet**

[corinne.riquet.cgap@gmail.com](mailto:corinne.riquet.cgap@gmail.com)

**Emilio Hernandez**

[ehhernandez@worldbank.org](mailto:ehhernandez@worldbank.org)

**Jamie Anderson**

[janderson12@worldbank.org](mailto:janderson12@worldbank.org)

[www.CGAP.org](http://www.CGAP.org)