

# iCommit Product Design Report

Prepared by iDT Labs

## Table of Contents

Background	3
Executive Summary	4-5
Our Methodology	6-7
Findings from Secondary Research	8-10
Summary of Stakeholder Interviews	11-12
Mapping of Process Workflows	13-18
On-ground Validation Exercise	19-24
Challenges	25
Next Steps	26



The information in this report is the copyright of iDT Labs Any information used from this report must be properly attributed as belonging to iDT Labs.

5 Foday Drive, Hill Station, Freetown, Sierra Leone  
info@idtlabs.xyz | +232 77 772 772 | www.idtlabs.xyz



# Background

Approximately **87 percent of the population of Sierra Leone faces financial exclusion**, especially in the agriculture and the micro, small and medium enterprises (MSME) sectors, which are vital contributors to the country's economy. This lack of access to finance has far reaching effects on Sierra Leone's economic development. To make the country's economy more resilient, it is important to expand the financial safety net to serve the underserved and unserved members of society.

Concurrently, although **agriculture contributes approximately 75 percent to the country's Gross Domestic Product\* (GDP)**, low crop yield constantly plagues the ability of smallholder farmers to maximize their economic standing and thereby escape the poverty trap. The inability of smallholder farmers on average to invest in affordable savings schemes, coupled with their fluctuating liquidity situation hinders their ability to buy crop inputs that could increase their crop yield.

To help smallholder farmers save money to purchase much needed agricultural inputs, we are proposing iCommit, a mobile money based conditional cash transfer savings scheme that would allow farmers to buy agricultural inputs at harvest time for the next growing season. By selecting the number and types of inputs that they require, farmers would then be presented with a savings plan for regularly depositing

money in their mobile money wallets. At the end of the savings period, depending on the amount saved, farmers would be able to purchase inputs at a discounted price. iCommit is currently being developed by iDT Labs under a grant from the United Nations Capital Development Fund's (UNCDF) Mobile Money for the Poor (MM4P) initiative to pilot the service in Sierra Leone.

The idea for iCommit stems from a research published by E. Duflo, M. Kremer and Robinson in the American Economic Review (Duflo et al., 2011). Duflo et al. (2011) tested the impact of offering small scale maize farmers in Busia district of Western Kenya fertilizers to buy in advance at harvest time for the next growing season with free delivery. **Forty percent of the farmers who were offered the option to buy in advance did.** In the same experiment, Duflo compared the impact on fertiliser use with another group of maize farmers who were offered to buy fertilisers at subsidised prices during the growing season. The impact of offering to buy in advance was equivalent to a 50% subsidy on fertiliser price.

With iCommit, our aim is to improve financial inclusion in Sierra Leone by providing access to finance to some of the most economically marginalized people in society, as well as enhancing food security by making it easy and affordable for farmers to buy crop inputs.



Photo by Kenny Lynch

\* <http://www.un.org/africarenewal/magazine/special-edition-agriculture-2014/sierra-leone-nursing-agriculture-back-health>



# Executive Summary

The main purpose of this report is to summarize the key learnings, challenges and insights that we have gained from our initial design sprint for iCommit before the launch of the pilot. Our learnings from this sprint would help us understand the end users better, which in turn would guide the development of the product and the execution of the pilot.

## The objectives of the pilot are:

1. Create a minimum viable product for iCommit
2. Launch the pilot of the service with at least 100 farmers in Sierra Leone to test the validity of the service
3. Elicit feedback from the end users on the usability and functionality of the service
4. Measure the improvement in the farmer's yield brought about by the service
5. Test the business plan and revenue generation plan of the service
6. Document the insights gained from the pilot to improve the next iteration of iCommit before launching on a larger scale in Sierra Leone





# Key Findings

Some key findings from our design sprint are summarized below and are dealt with more in detail throughout this report:



**1. Despite rising trends in mobile phone and mobile money adoption in the country, mobile phone and mobile money usage is still low amongst our targeted end users.**

The majority of smallholder farmers do not hold mobile phones, and also do not use mobile money regularly. Thus, any service that aims to use mobile money to deliver a financial product to the end users should explore a grouped based scheme, which can allow multiple users to sign up and access the service as a single group.

**2. Any agri-tech innovation should focus on more value added crops instead of catering to widely planted crops which are usually heavily subsidized by the government**

The government of Sierra Leone, along with donor partners, does subsidize the cost of inputs for more widely grown crops such as rice. Therefore, there is little incentive for farmers to save money for purchasing inputs for these crops. Rather, the focus should be on providing financing options for crops that require comparatively expensive inputs that are beyond the financial means of the average farmer.

**3. To ensure widespread adoption amongst people at the base of the pyramid, any tech-based intervention should have the maximum amount of human touchpoints.**

For a segment not accustomed to using technology in their daily lives, it is important to design a tech based service in a way that it enables regular communication with the service provider. This human interaction is essential for ensuring that the end users feel comfortable using the service, which in turn would ensure a high adoption rate of the service.



# Our Methodology

Our product design methodology is based on human centered design (HCD), a creative approach that is characterized by iterative prototyping and feedback generation from the end-users. Instead of designing and testing the product in defined periods, HCD entails developing a deep empathy for the end users, by testing out different ideas with simple prototypes, and incorporating the feedback from the end-users in near real-time. Our HCD plan comprises of the following activities



## 1. Framing the design challenge

Properly framing the challenge that we aim to solve would help us to start on the right footing and organize our initial plan of action. This frame would also provide a blueprint that would dictate how we kickstart the rest of the design process. However, this frame of reference would not be set in stone, but rather as we continue the design process, it would evolve accordingly.

### **What is the problem that you are trying to solve?**

Lack of access to finance, which hinders the economic mobility of poor people in Sierra Leone, coupled with low levels of food security due to a lack of finances to purchase crop inputs that can increase agriculture yield

### **Frame your problem as a design question.**

How might we encourage the uptake of mobile money amongst small scale farmers in Sierra Leone and also help them increase their crop yield

via a savings scheme that helps them save for agricultural inputs in advance?

### **Now state the ultimate impact you're trying to have**

Improve food security in Sierra Leone, and increase the financial safety net to include small scale farmers in the country.

### **What are some possible solutions to your problems?**

A mobile money based savings scheme, which would allow farmers to save money in advance for buying agricultural

inputs for the next harvest season.

### **What are some of the contexts and constraints that you are facing?**

Technical: integrating a USSD /SMS based application with the mobile money APIs

Population Based: The end users have low tech literacy, are irregular users of both mobile devices and mobile money, and view mobile money as a cash-pipeline, a means of sending or receiving cash, and not as a savings product.



## 2. Secondary Research

The aim of our desk based secondary research was for our design team to get up-to-date with the scope of the design challenge that we aim to address. The objectives of this field of the HCD plan were as follows:

- i. Desk research to map out the status of the mobile money, agriculture and financial inclusion sectors in Sierra Leone, with special emphasis on the impact that these sectors have on the lives of smallholder farmers across the country;
- ii. Demand side analysis from the perspective of the farmers to map out the challenges that they face with regards to accessing agriculture inputs, their ability to purchase inputs on time, and any inherent challenges that they face in terms of access to financial services;
- iii. Supply side analysis from the perspective of the input sellers and mobile network operators, particularly around the challenges present in providing agriculture inputs and financial services to

## 3. Expert Interviews

The aim of conducting these interviews was to get a systems-level view of the design challenge, and to get the feedback from different stakeholders involved in the agriculture value chain on how iCommit should be structured.

## 4. On-ground research

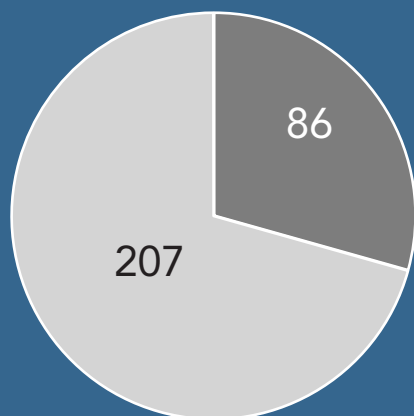
Our team undertook an extensive validation exercise with farmers in Lungi, Port Loko and Songo, Western Rural. The aim of this exercise was as follows



1. Test the workflows and mockup designs of iCommit with the farmers
2. Map out the average planting and harvesting time periods for the farmers
3. Verify the crops and inputs for which there is the greatest demand from the farmers
4. Map out the average duration for which farmers sell their crops in the market, and thereby identifying the average duration for which the farmers hold excess cash
5. Understand the patterns of mobile money usage amongst farmers, along with the available access of mobile money services in these areas



# Findings from Secondary Research



86 of 207 Chiefdoms have no financial inclusion access points (APs)



## The Financial Services Landscape in Sierra Leone

We conducted a thorough desk review on all the financial services offered in Sierra Leone, including the distribution and availability of financial inclusion access points (APs) in the country. APs include any end points such as banks, community banks, mobile money agents etc that the end users interact with to use various financial services, such as depositing money in banks, transferring cash via mobile money etc. By studying the distribution of these APs, we were able to identify economically active regions that are underserved by APs. Our hypothesis was that these regions already have the necessary ground conditions, such as a high population density and high literacy rate to take advantage of the benefits that would be introduced via increasing the financial safety net in these regions. This in turn would help us to identify potential areas in the country for launching the pilot of iCommit.

According to the **World Bank's Geospatial Data Analysis and Mapping For Financial Inclusion Project Report 2\***, 86 out of the total 207 chiefdoms in Sierra Leone do not have APs. 25 of these chiefdoms have the following characteristics that classify them as areas with high economic activity, compared to the national average:

- High population density
- High literacy rate
- High employment level
- High mobile subscription rate

These 25 chiefdoms can be categorized as rural areas which have the optimum conditions required to jumpstart their economies with increased access to financial inclusion. Since Port Loko has the greatest proportion of these 25 chiefdoms out of all the other regions (5), we have provisionally selected it as one of the areas for conducting the pilot. However, the actual areas in Port Loko where the pilot would be conducted would still contain sufficient mobile money agents that would assist the farmers in depositing savings via iCommit in their mobile money wallets.

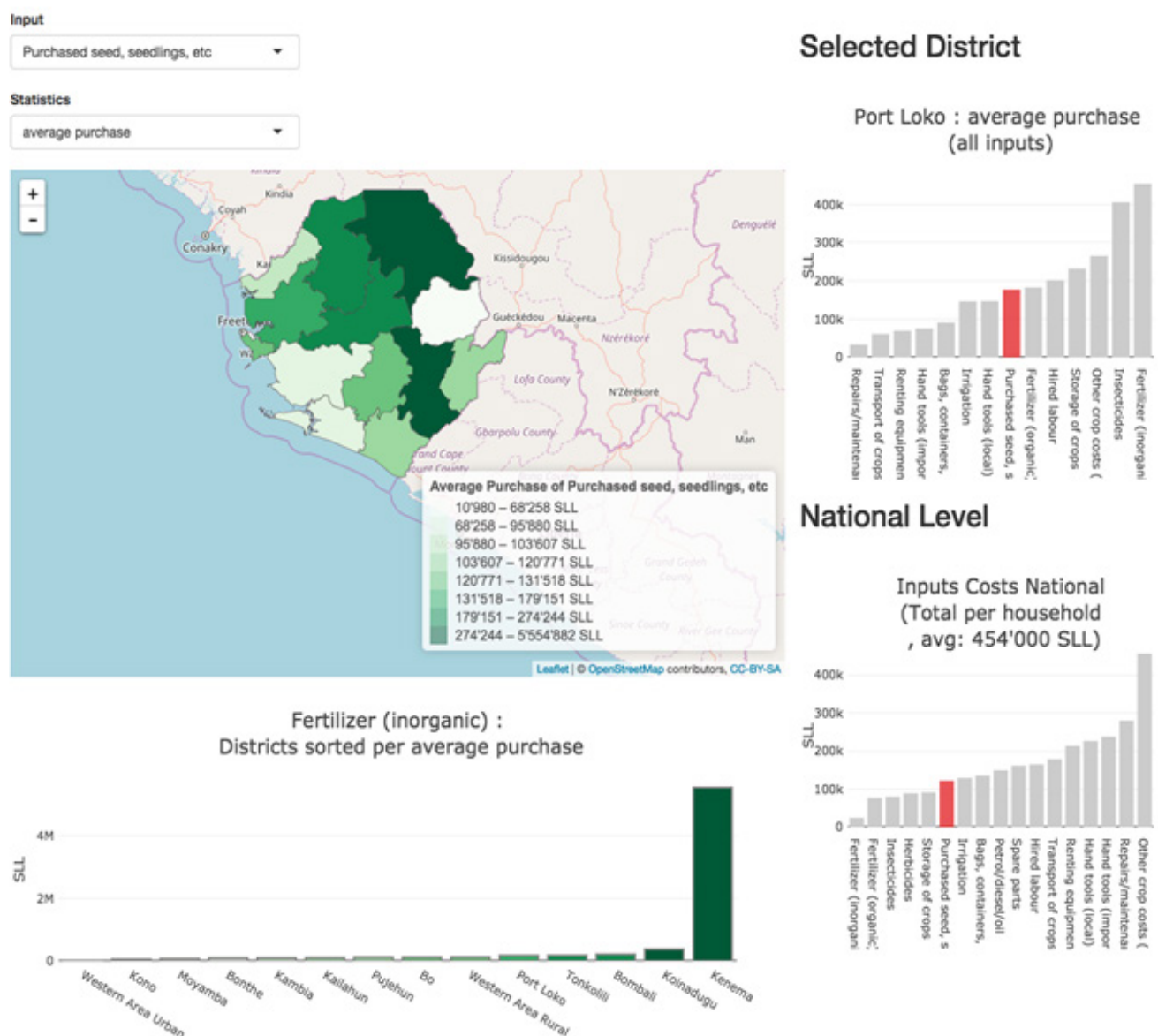


# Analysis on Household Income and Consumption in Sierra Leone

We analyzed data from the **Sierra Leone 2011 Integrated Household Survey** to select the pilot crops and the inputs. This was the most updated publicly available dataset that contained information regarding the growing seasons of different crops, along with input usage across the different districts. The input spending value from this dataset was adjusted for cumulative inflation over the period. However, given that relative prices of the commodities would have changed over the period, coupled with the fact that the survey was meant to be representative at the national level and not at a district level, we verified our choice of the pilot crops and inputs derived from the data with qualitative interviews conducted during the on ground validation exercise with the farmers, which is expanded in greater detail in subsequent sections, as well as with key informants, such as traders and agronomists.

The main conclusions derived from the data were that **farmers tend to spend more money on seeds than on fertilizers**. Furthermore, we decided not to choose other popular inputs such as fertilizers due to two main reasons. Firstly, a large proportion of farmers already receive subsidized fertilizers from the government. Secondly, from a logistic point of view, it would be difficult to supply fertilizers to farmers. However, we are keeping the choice of inputs available to the farmers via iCommit flexible. The final range of inputs available through the service would depend on the feedback elicited from the farmers during the on-ground verification exercises.

The following are some screenshots of the [data visualization app](#) that we created.





Crop type

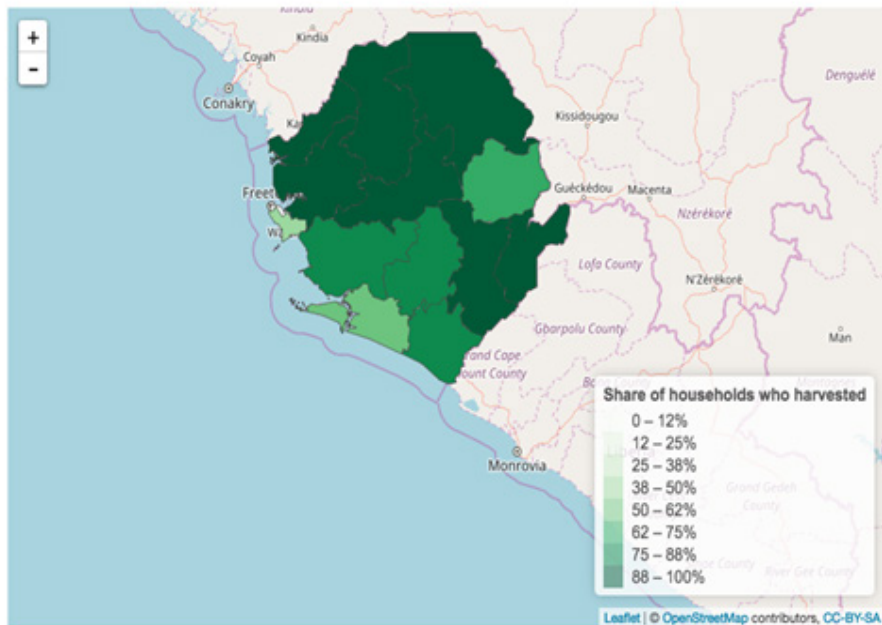
Rice

Share of households

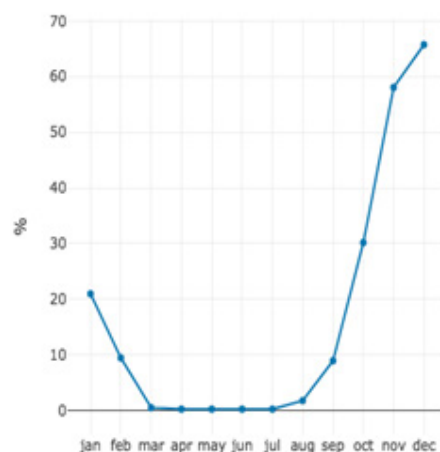
who harvested

when:

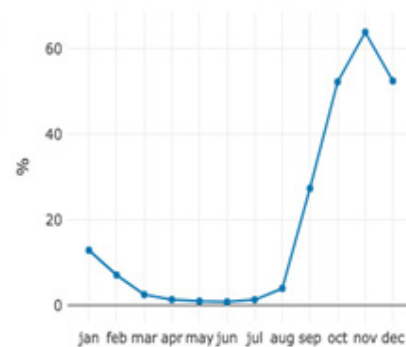
over the year



## Rice: % of households who harvested per Month in Port Loko



## National (for comparison)





# Summary of Stakeholder Interviews



Our team conducted interviews with representatives from the following organizations, amongst others:

- Zinta Zommers - Food and Agriculture Organization, Sierra Leone
- Alari Hasanatu Ijileyoh Mahdi - World Bank
- European Union's Boosting Agriculture and Food Security Project
- Nianda (Agriculture Input Seller)
- Seedtech (Agriculture Input Seller)
- Balmed (Farmer Cooperative)
- Orange Money
- Africell Money

The following is a summary of the main pointers that was discussed with the major stakeholders:

## **The World Bank**

The Bank provided us access to the Sierra Leone Geospatial Data Analysis and Mapping For Financial Inclusion Project Report, which maps out the financial access points available across the country to identify areas that are underserved by financial service providers. We aimed to use this information to identify areas of high economic activity but those that are currently underserved by financial service providers as potential areas for launching the pilot at. They also agreed to provide us with the GPS coordinates of

the different regions that have been mapped out in their report, to aid us in selecting the pilot areas for iCommit.

## **Food and Agriculture Organization (FAO)**

The FAO introduced us to representatives from the European Union's (EU's) Boosting Agriculture and Food Security (BAFS) project. The BASF project will run for four years from 2017-2021, and it aims to reduce poverty and food insecurity in Sierra Leone through better governance, improved household living conditions and higher incomes. They

also shared with us the crop calendar that contained information about the planting, growing and harvesting period for different crops in Sierra Leone, to aid us in deciding the time periods for iCommit's pilot.

## **Africell**

Africell was willing to provide us access to their USSD gateway for creating the USSD based User Interface (UI) for iCommit. However, the licensing fee for this integration would be between US \$ 10,000 - US \$ 20,000.



## Seedtech

Seedtech gave our team valuable feedback on the mockups and workflows for iCommit, especially around how best to enable the end users to save money on a recurrent basis for the crop inputs in their mobile money wallets. They also mentioned how for a number of crops in the market such as rice, the government and international development partners provided massive subsidies to the farmers in the form of free inputs, such as seeds and fertilizers. According to them, not only was the quality of these inputs low, but these subsidies adversely affected the competitiveness of the market since the farmers were usually uninterested in paying even a nominal fee for buying higher quality inputs.

## Balmed

Balmed provided our design team with valuable information on which crops to focus on during the pilot. Before going into the first design iteration of iCommit, our initial hunch was to focus on cash crops, such as coffee or cocoa. However, we soon realised that coffee and cocoa were long term crops which did not have a yearly harvesting and planting season, and thus it would not be possible to implement the six month long pilot of iCommit with these crops. Moreover, most of the farmers can't afford to buy the inputs for these cash crops due to their high cost. Instead, farmer cooperatives like Balmed pay the farmers upfront to purchase the inputs, and they then deduct the cost of these inputs from the revenue that the farmers generate from the crop's yield.

Furthermore, Balmed also recommended another potential use case for iCommit: allow certain farmers, such as cashew farmers, to use iCommit to save money in advance for hiring farm cleaners to prepare their lands at the beginning of each planting season.

Finally, they also alerted our team on a potential issue with the adoption of iCommit amongst the farmers. Since most farm cooperatives already purchase inputs for the farmers in advance, with the farmers repaying the input cost from their harvest, it might be difficult to switch the farmers from an existing input purchasing scheme to our model, especially since the iCommit structure would force them to save regularly, whereas they are already accustomed to paying the cost during the harvesting

season when they have an influx of money from the sale of their crops.

## Nianda

Nianda introduced us to a number of farmers in Port Loko and Songo for potentially signing them up to the iCommit pilot. They also apprised us about two upcoming projects which provide a good use case for iCommit. One of them is the launch of a food processing plant that would focus on processing vegetables for international export. This project provides a potential opportunity for signing up vegetable growers to iCommit and allowing them to save money to buy inputs. The other project relates to providing a basic bundle consisting of poultry and poultry feed that is required by people to carry out poultry farming. For this project, the iCommit platform could be used by the farmers to save money regularly for purchasing the poultry bundle at designated times of the year.



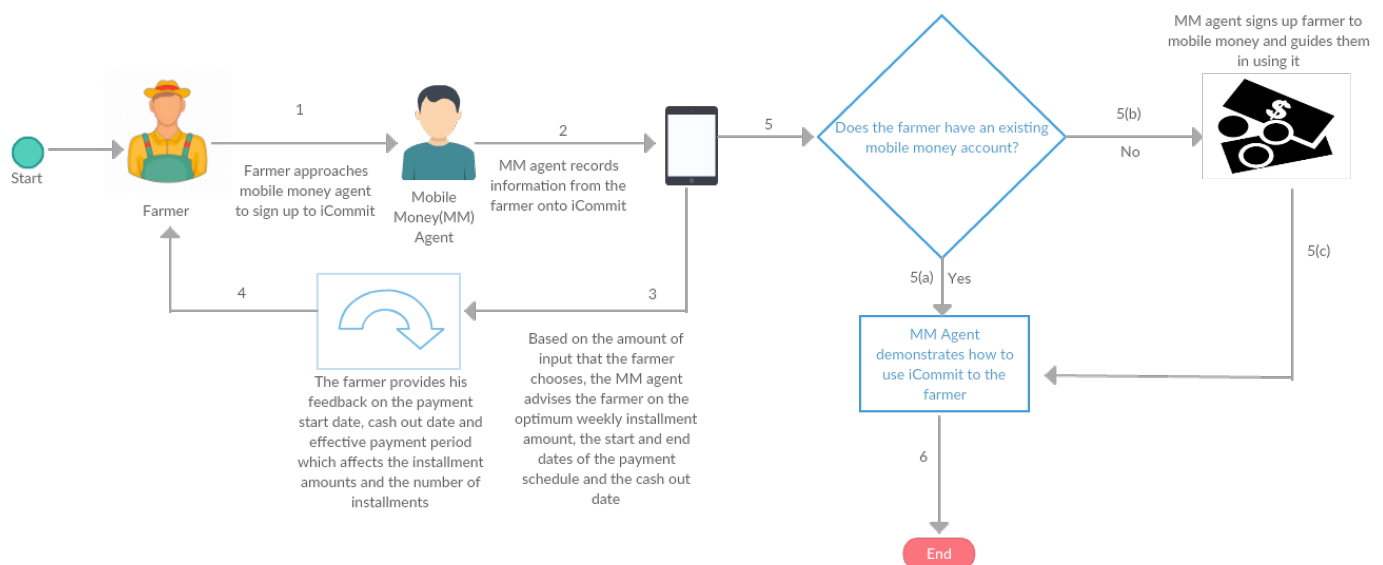
Photo by Steve Evans

# Mapping of Process Workflows

Based on detailed ethnographic studies conducted with farmers, along with in-person interviews with input sellers and donor organizations operating in the agricultural space in Sierra Leone, we mapped out a range of workflows that described how different user groups would be accessing and using iCommit. These workflows were further validated and refined from the feedback received from the on-ground validation exercise that was conducted with farmers. However, these workflows would be further revised and edited over the course of the pilot, depending on the iterative feedback that we receive from the end users on the various aspects of the service.

## User Signs Up to iCommit

This workflow describes the steps that a farmer takes when he signs up to iCommit. To aid the onboarding process for end users who might not be very comfortable with using tech based services in their everyday lives, a mobile money agent shall register each new farmer to the service. This MM agent shall not only accurately record data from the farmers which would not only help in M&E for the pilot, but would also guide the farmer in using the application from their phones. Furthermore, in case the farmer has not used a mobile money wallet before, the MM agent shall also guide the farmer in registering and using it. Our hope is that the initial onboarding and training process for the farmers is as smooth as possible.



## Data Model

The following data fields would be recorded by the mobile money agent at the time of registering the farmer to iCommit.

### 1. Personal Information

- a. Name
- b. Phone Number
- c. Location
- d. Residential Address & GPS Coordinates of Village
- e. National ID ( Optional field only required if the farmer needs to sign up for mobile money)
- f. Picture
- g. Age
- h. Gender

### 2. Agricultural Information



- a. The crops for which the farmer is going to purchase inputs for from iCommit
- b. The number of acres on which the farmer plants each crop

### 3. Financial Literacy Information

- a. Has the farmer used mobile money before? ( If the farmer has not used mobile money before, then the agent signs them up for a mobile money wallet and trains them in using it)
- b. How often has the farmer used mobile money? ( Options for this question: Over the last 30 days, Over the last 90 days, Over the last one year)
- c. Which of the following financial services has the farmer used before( Options for this question: Credit schemes, savings schemes)

### 4. Household Information

- a. Size of household
- b. Income level of household ( The farmers should be provided with a list of income ranges to choose from)
- c. Can the farmer read or has someone in the family who can read?

### 5. Farming Information

- a. What type and quantity of inputs does the farmer require? (can be multiple types)  
Note: based on the types and quantities of inputs that the farmer requires, the system will automatically calculate and report to the farmer the following :
  - The optimum installment amount
  - The suggested start of the payment period
  - The suggested end of the payment period
  - The latest cash out date

## Algorithm for calculating the suggested installment amount

### Terminologies used in the algorithm calculations:

The “effective payment period” is the suggested time duration during which the majority of the farmers are expected to have the cash required to make the iCommit deposits. This period is in effect the time period during which the farmer is selling their crops from the previous harvesting season in the market.

### The following are the steps that would be

### followed in the algorithm:

1. The effective payment period, the iCommit start date and the cash-out date are calculated by the system as follows:
  - a. Consultations are carried out with farmers and input sellers to collect information from them with regards to these dates
  - b. This information is analyzed with historical trends about the market transactions to calculate the required values.
2. The total payment amount that a farmer pays is calculated by multiplying the cost of each input with the number of units of the said input, and adding the costs of the input bundle.
3. The installment amount is calculated by dividing the total payment amount across the suggested “effective payment period”. The amount is rounded off to the nearest whole number.
4. The system recommends to the farmer the following suggested values:
  - a. Payment start date
  - b. Individual installment amount
  - c. Frequency of installments
  - d. Total number of installments
  - e. Cash out date
5. If the farmer wants a different installment amount, then, the iCommit agent guides him in changing either the number of inputs, the payment start date or the total number of installments.

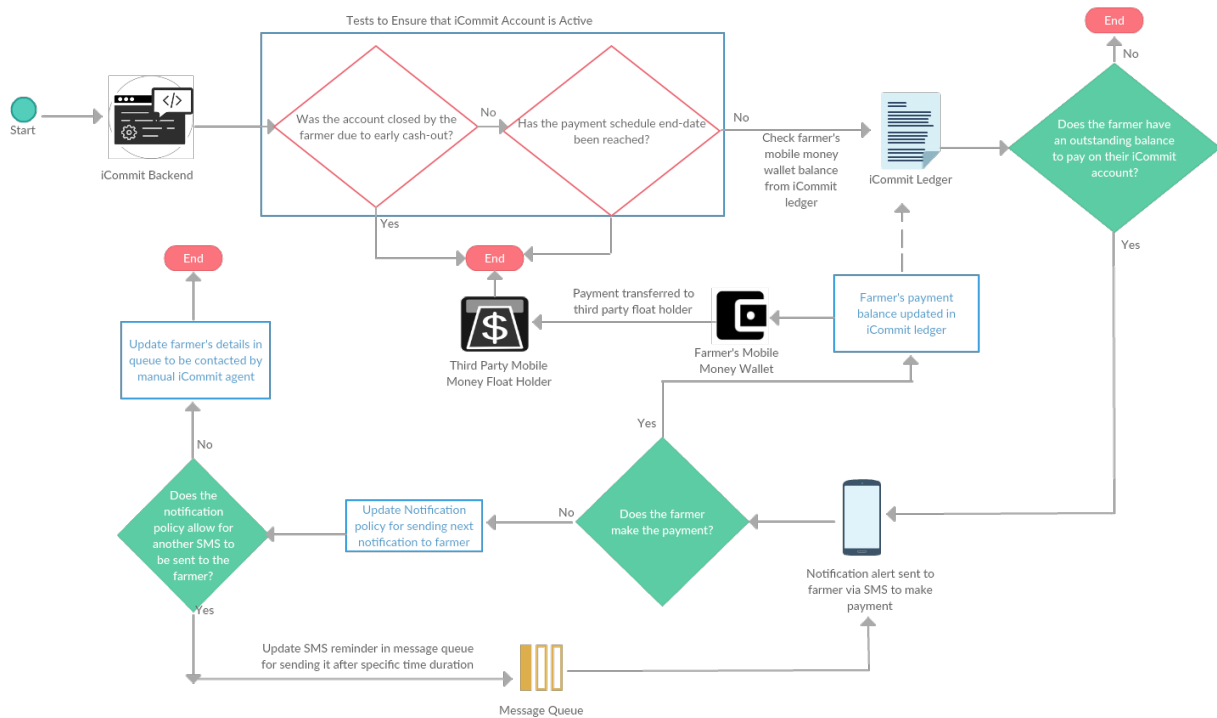
### **Note**

The iCommit agents shall be using the iCommit mobile app register the farmers. We need to understand how the crop yield is measured, i.e. whether in units of weight, bundles etc. This information is essential to measure the increase in crop yield during the pilot as a result of the intervention. The following information is required to calculate the individual installment amount

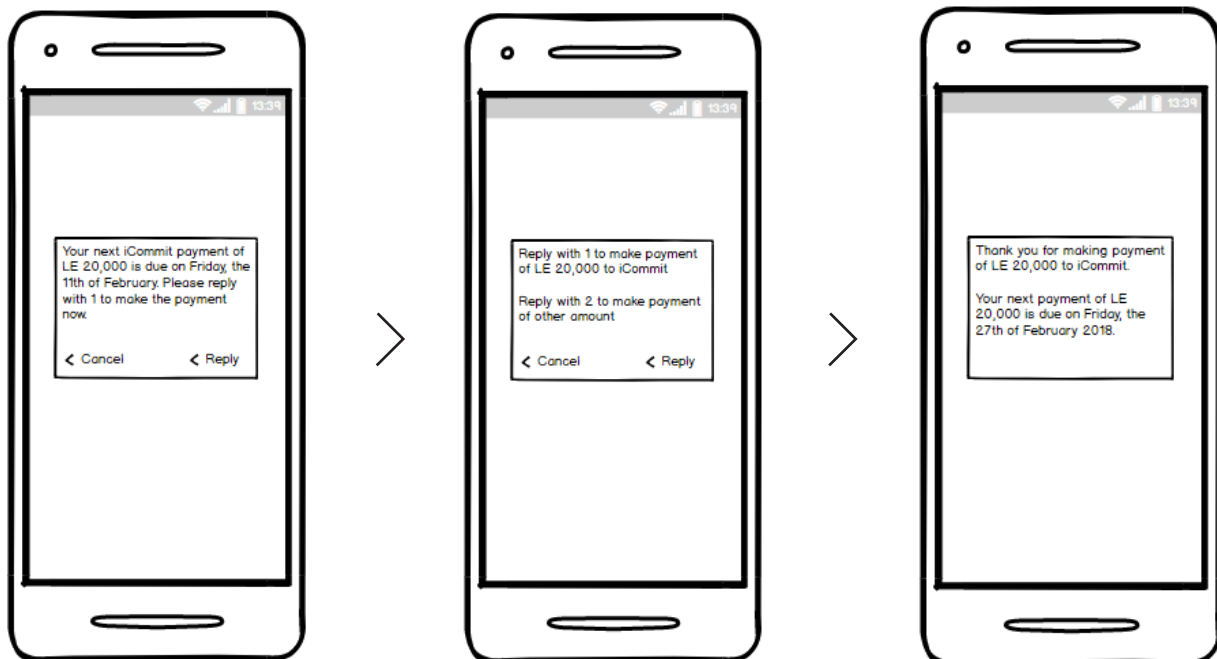
- Unit price of each input
- The “effective payment period”, which is the suggested time duration during which the majority of the farmers are expected to have the cash required to make the iCommit deposits. This period is in effect the time period during which the farmer is selling their crops from the previous harvesting season in the market.

## User Pays Installment

iCommit would be extensively leveraging a robust push notification policy to encourage farmers to make the payments on time. Moreover, by sending out regular reminders to farmers as the payment date approaches closer, as well as by sending field agents in case of non-payment by the farmers, we aim to ease the process of adopting to using iCommit by the end users.



## Mockups for Making Deposit

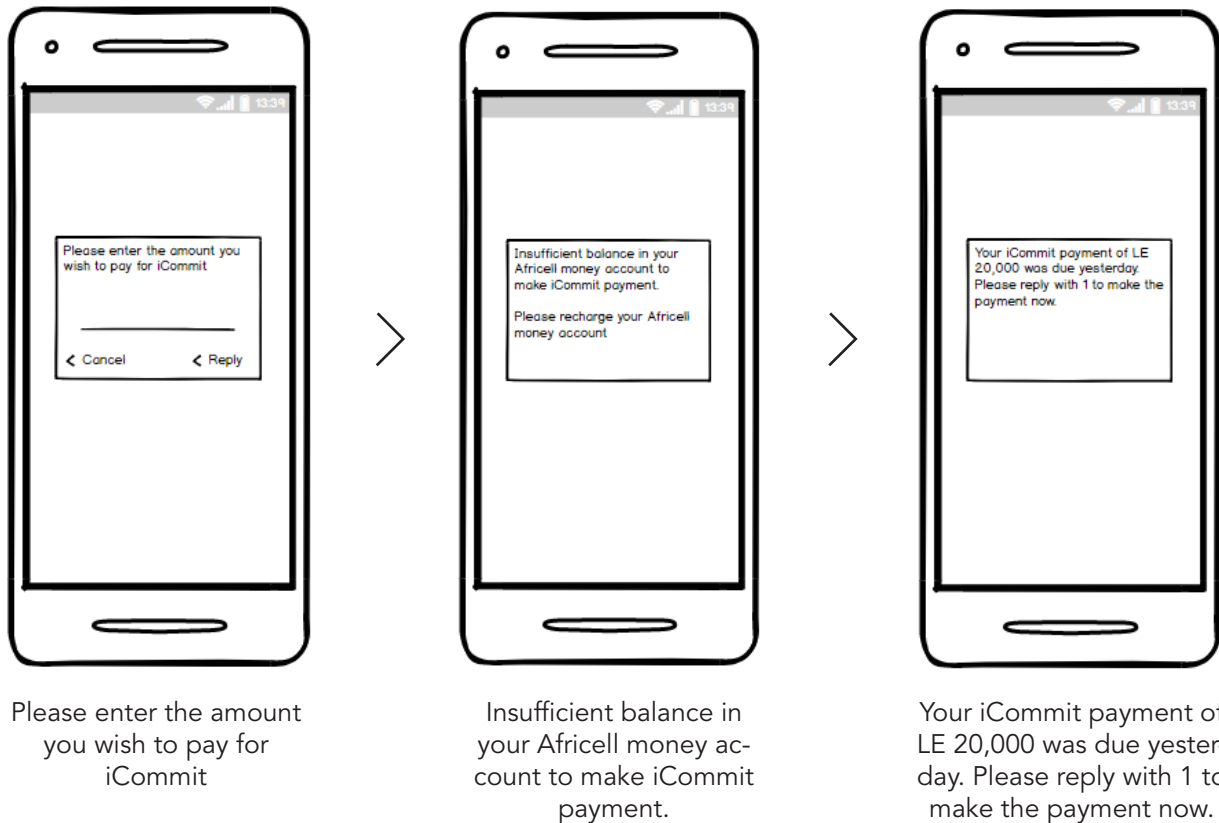


Your next iCommit payment of LE 20,000 is due on Friday, the 11th of February. Please reply with 1 to make the payment now.

Reply with 1 to make payment of LE 20,000 to iCommit

Thank you for making payment of LE 20,000 to iCommit.





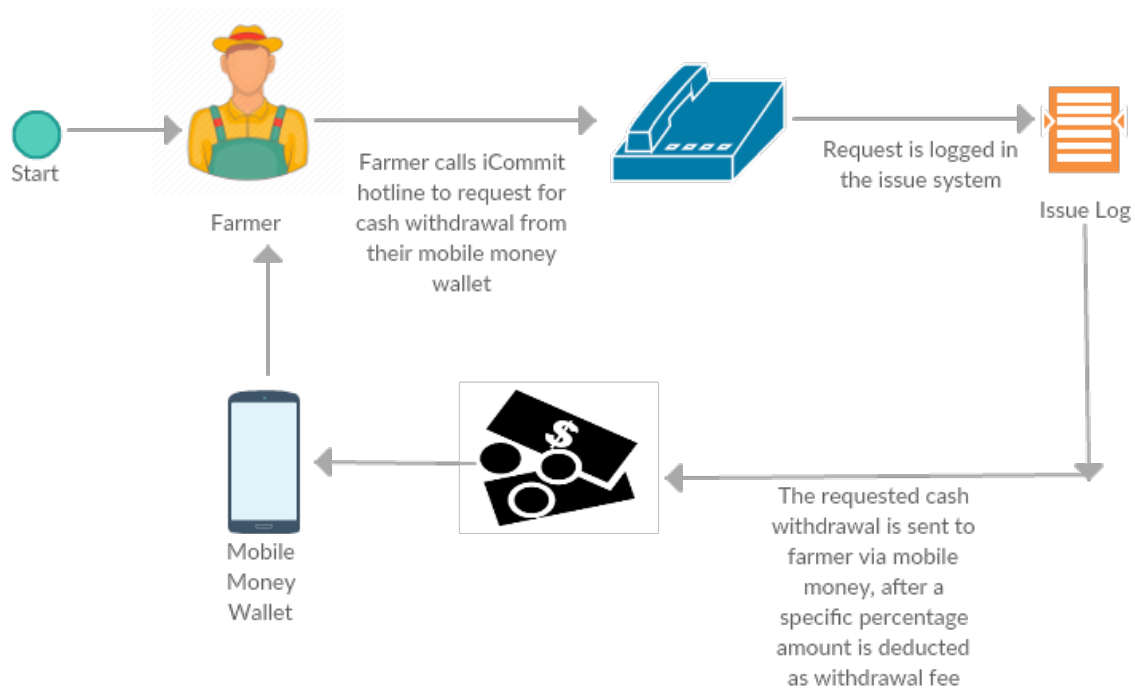
## Notification Policy for Sending Deposit Messages to Farmers

The following notification policy will be used to send payment deposit reminder messages to the farmers

- a. 3 days before the payment is due, a reminder SMS is sent to the farmer. The farmer can reply to this message to either make the recommended amount of payment or to enter a specific amount to deposit
- b. 1 day before the payment is due, in case the farmer has still not made the payment, a reminder SMS is sent to the farmer. The farmer can reply to this message to either make the recommended amount of payment or to enter a specific amount to deposit
- c. On the day of the payment, in case the farmer has still not made the payment, a reminder SMS is sent to the farmer. The farmer can reply to this message to either make the recommended amount of payment or to enter a specific amount to deposit
- d. If the farmer fails to make the payment, an SMS is sent reminding them of the amount that they failed to pay 1 day after the payment due date. The farmer can reply to this message to either make the recommended amount of payment or to enter a specific amount to deposit
- e. If the farmer still hasn't made the payment 3 days after the payment due date, an in-person iCommit agent is sent to the farmer to inquire about any problems that they might be facing with the service

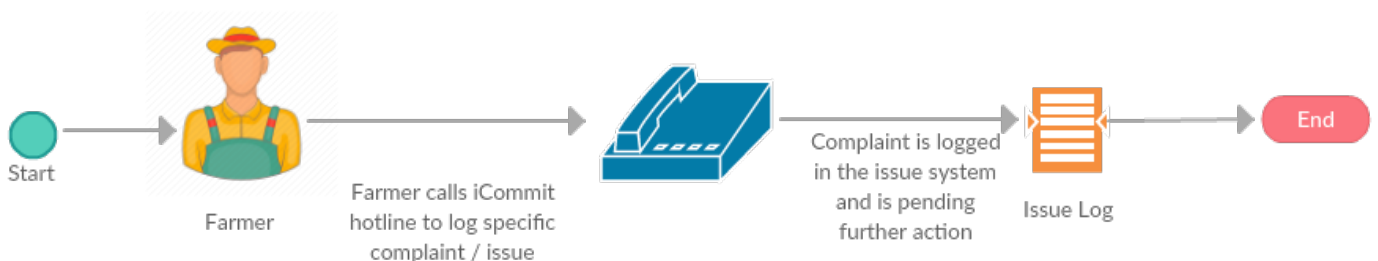
## User Withdraws Cash

Although one of the major aims of iCommit is to encourage farmers to store money in their mobile money wallets, the system would allow farmers to cash out of their wallets. However, a percentage fee is deducted from all cash out transactions, to discourage the farmers from withdrawing their cash in bulk from the ecosystem.



## Farmer Reports an Issue

To help with the adoption of iCommit, the farmer would be provided with a dedicated hotline for logging any complaints or issues with the service. The complaints would be handled according to a redressal strategy that would prioritize the complaints based on their level of severity. Also, each complaint would be addressed by a mobile money agent in person, to provide a human interface for the farmer to interact with.

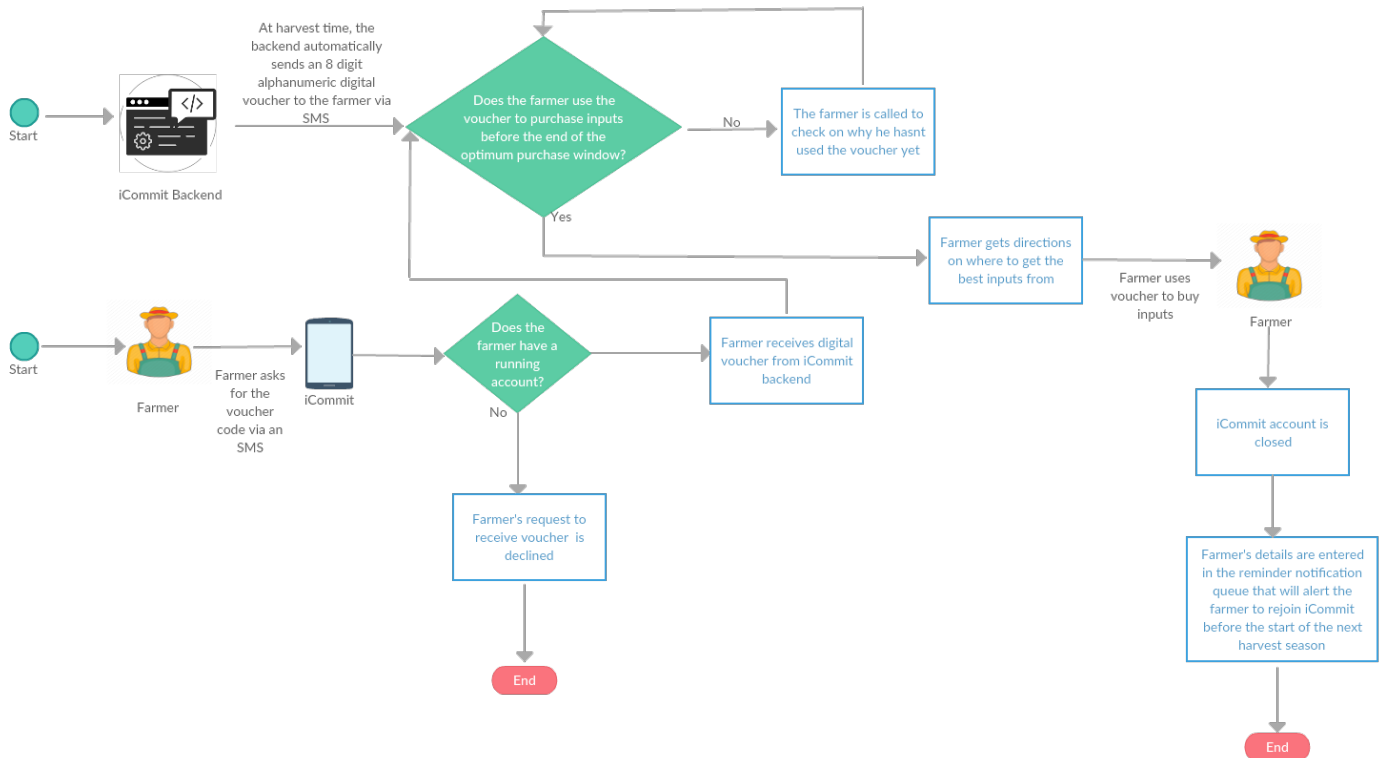




## User Gets Sent Voucher

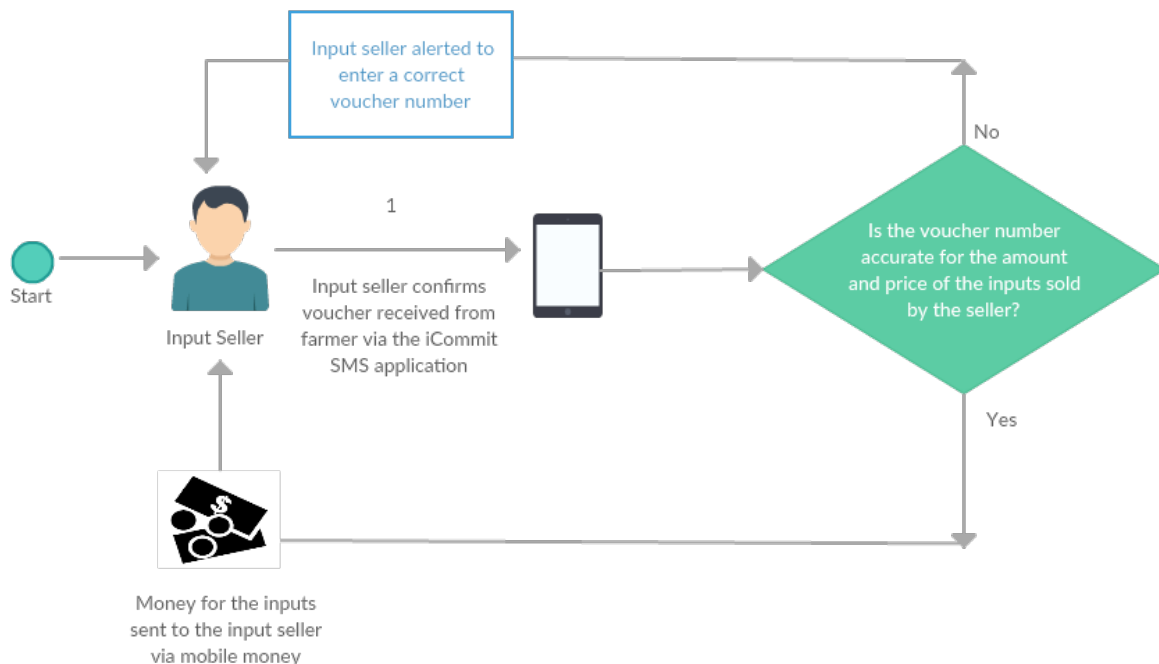
An 8 digit long alphanumeric voucher would be sent to the farmer via SMS to purchase the inputs. This voucher would be sent automatically by the system at harvest time. The value of the voucher would be equal to the total value of the payments made by the farmer to iCommit.

Furthermore, in case the farmer wants to purchase the inputs earlier, he can manually trigger the voucher to be sent to their phone.



## Trader Retrieves Money from Voucher

This workflow describes how the trader can verify the voucher code from a farmer before selling the inputs to them, as well as how can they retrieve the amount of the voucher via mobile money.

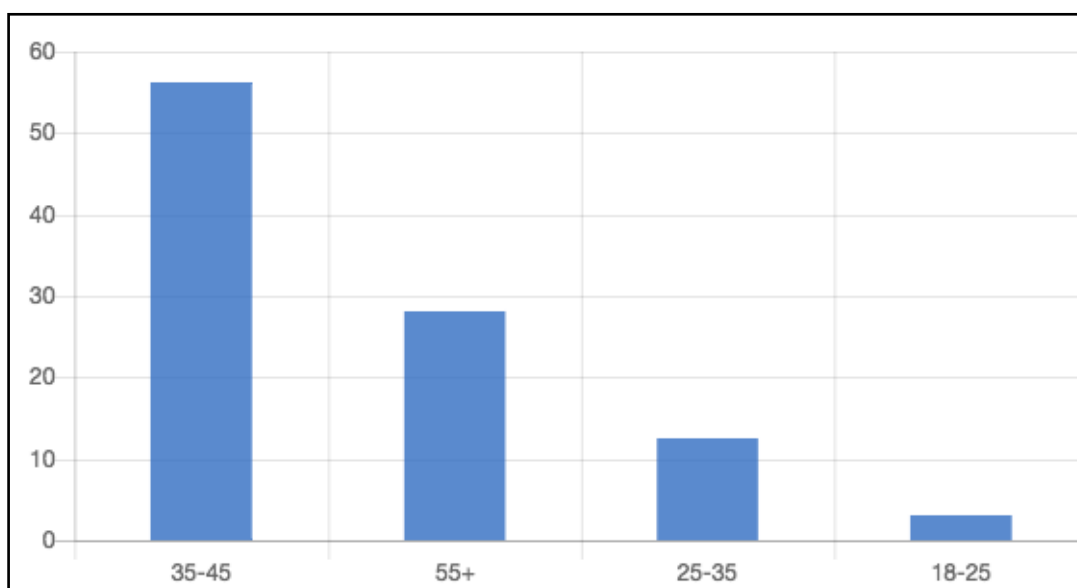


# On Ground Validation Exercise

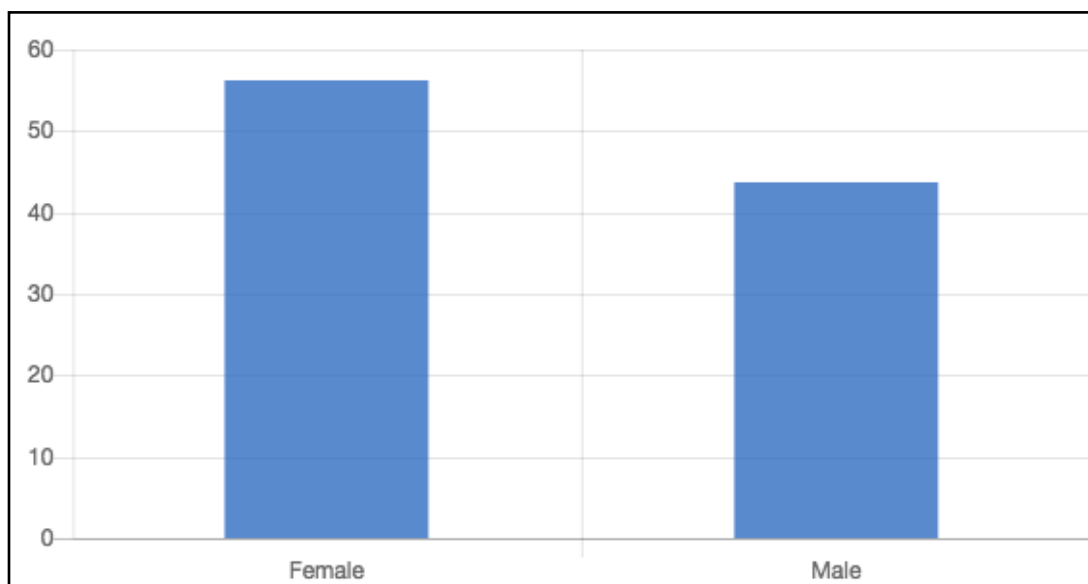
Our team conducted on-ground interviews with smallholder farmers in Lungi,Port Loko and Songo, Western Rural to validate the findings from our desk research and expert interviews. In total, our team shadowed 32 farmers over a two day period while they carried on with their everyday activities. The purpose of this exercise was to observe the farmers’ lives, and to get a better understanding of what their specific challenges were with managing their finances and growing their crops.

This immersion exercise would be repeated multiple times over the design process for iCommit. The findings from each of these exercises would guide the next iteration of the product proto-type.

Some Key stats from our survey are as follows:

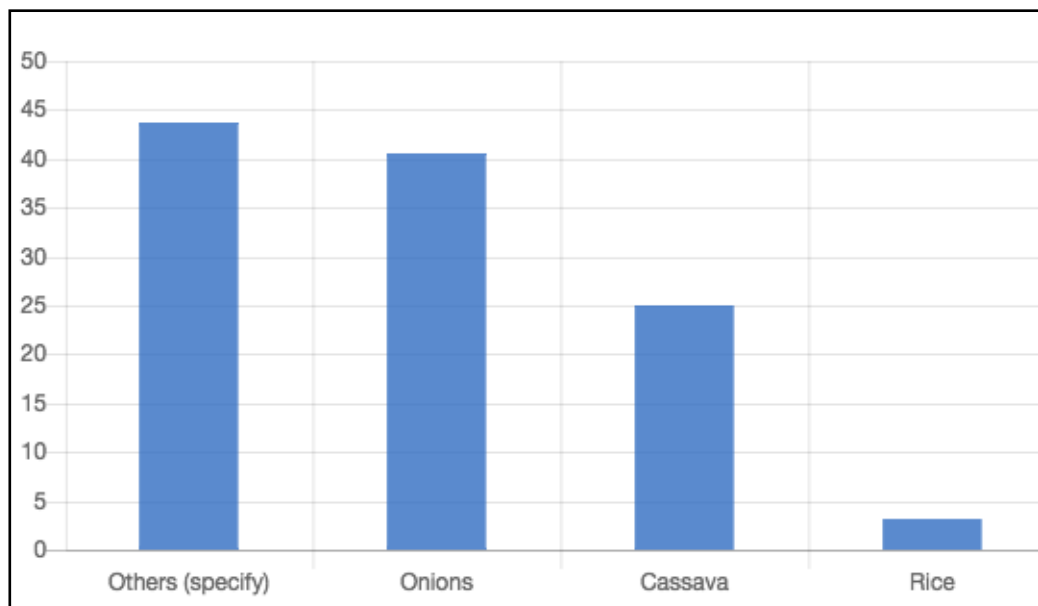


The farmers’ age distribution



The farmers’ gender distribution

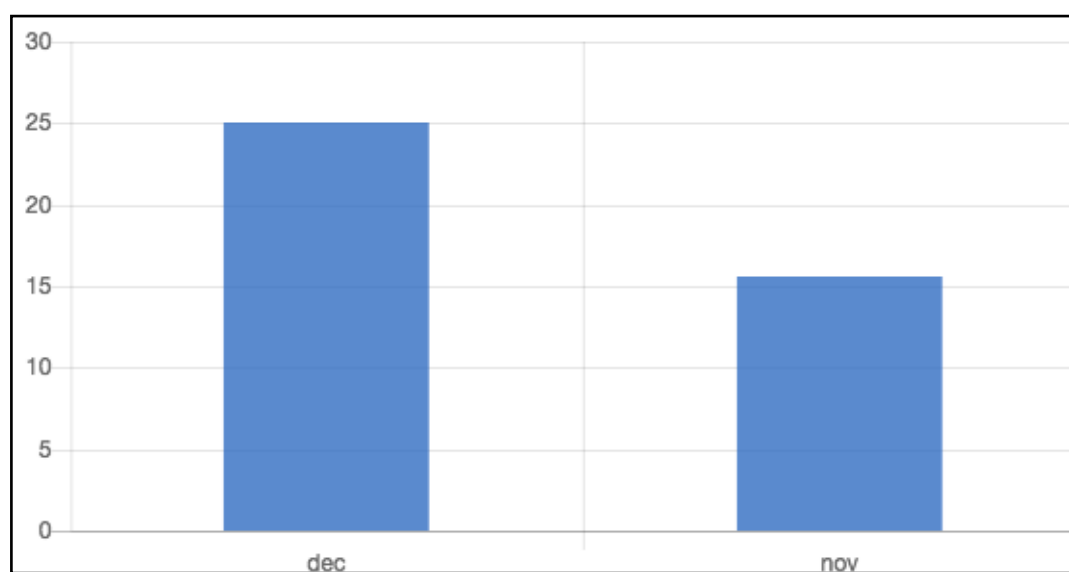




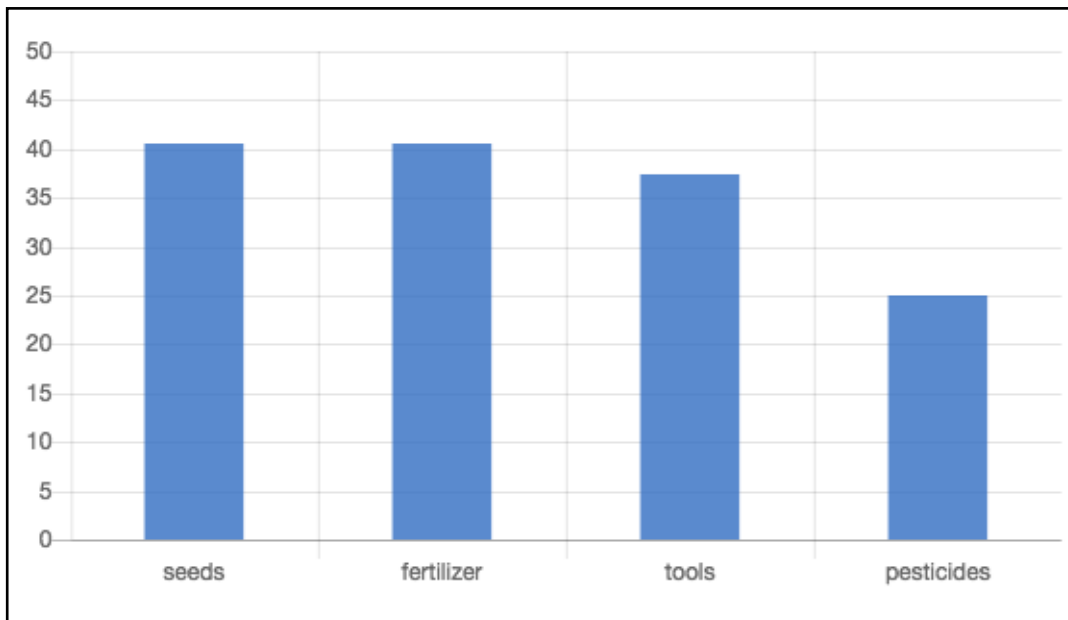
**The crops that the farmers grow**

Value	Frequency	Percentage
Okra	7	21.88
Pepper	2	6.25
Cucumber	2	6.25
Maize	1	3.13
Pepper, Okra,	1	3.13
Potato leaves	1	3.13

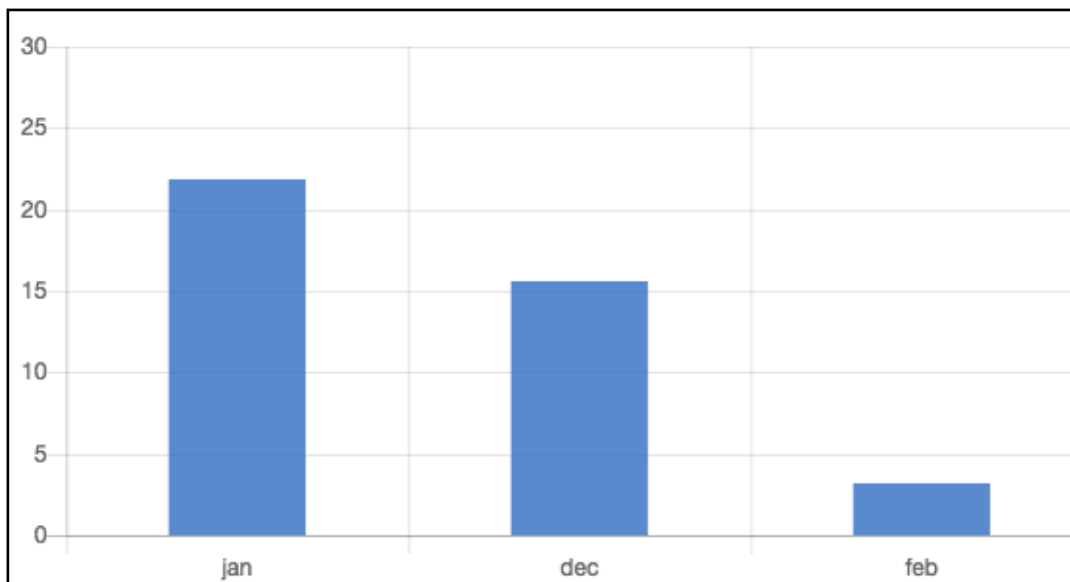
**Other crops grown by the farmers**



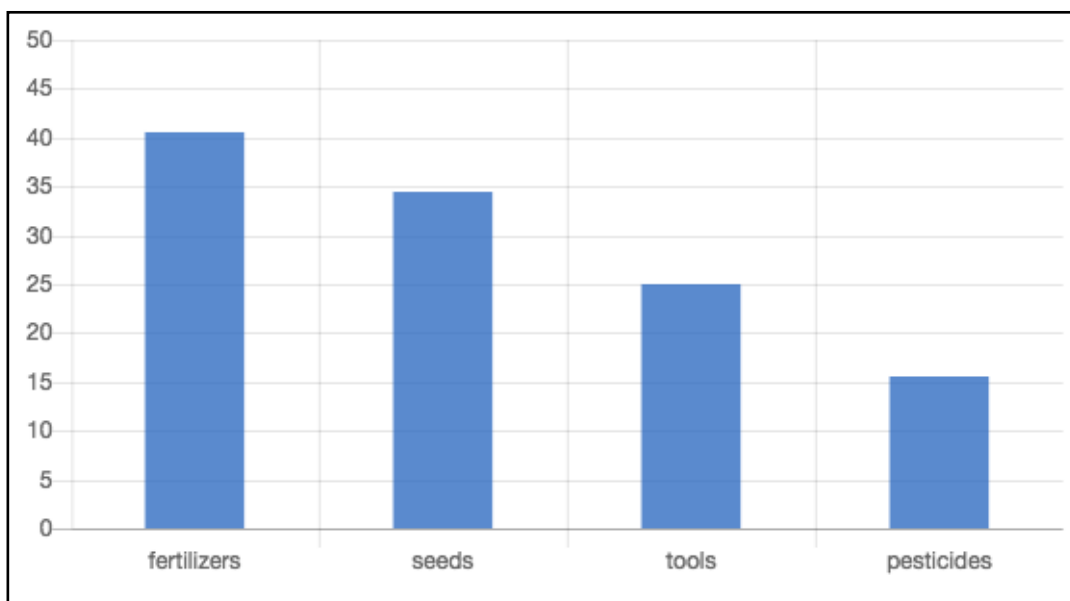
**The planting period for onions**



**Crop inputs bought for onions**

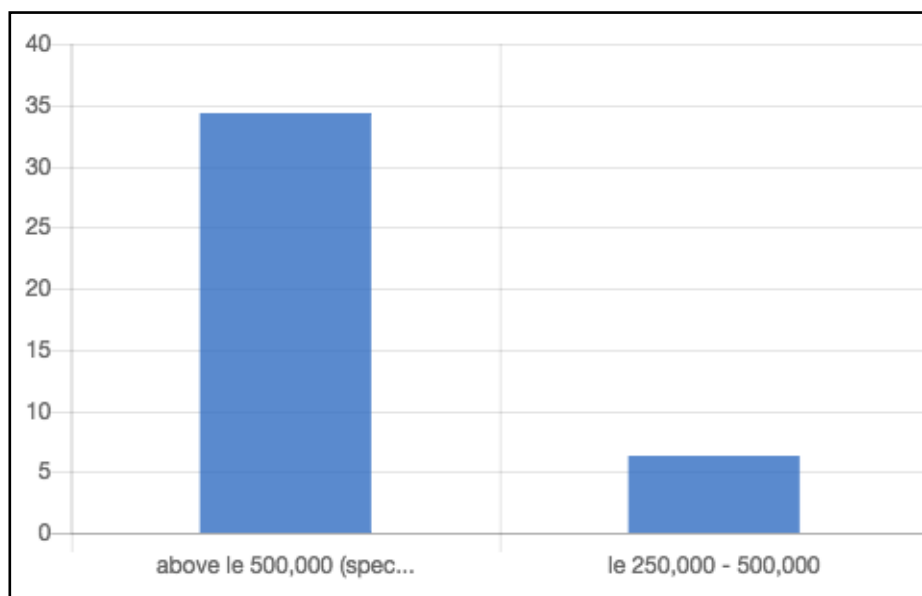


**Months during which crop inputs for onions are used**

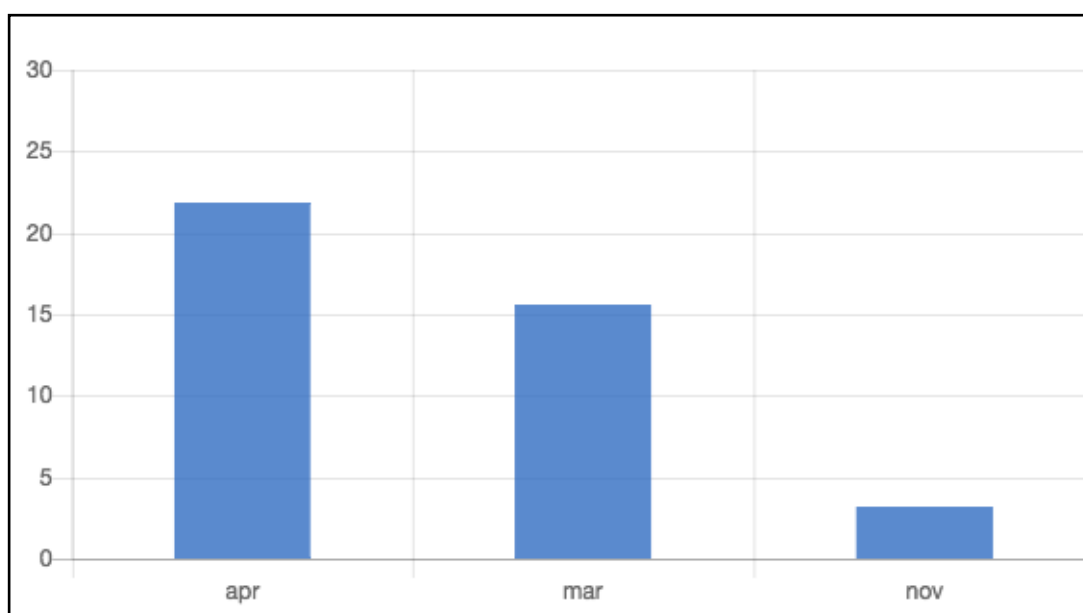


**Crop inputs which are difficult for farmers to purchase**

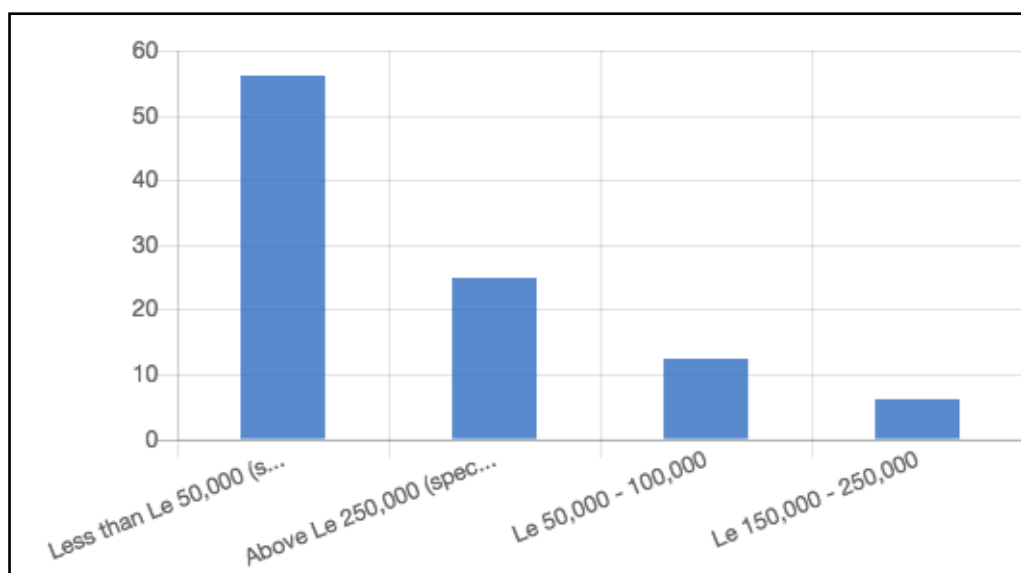




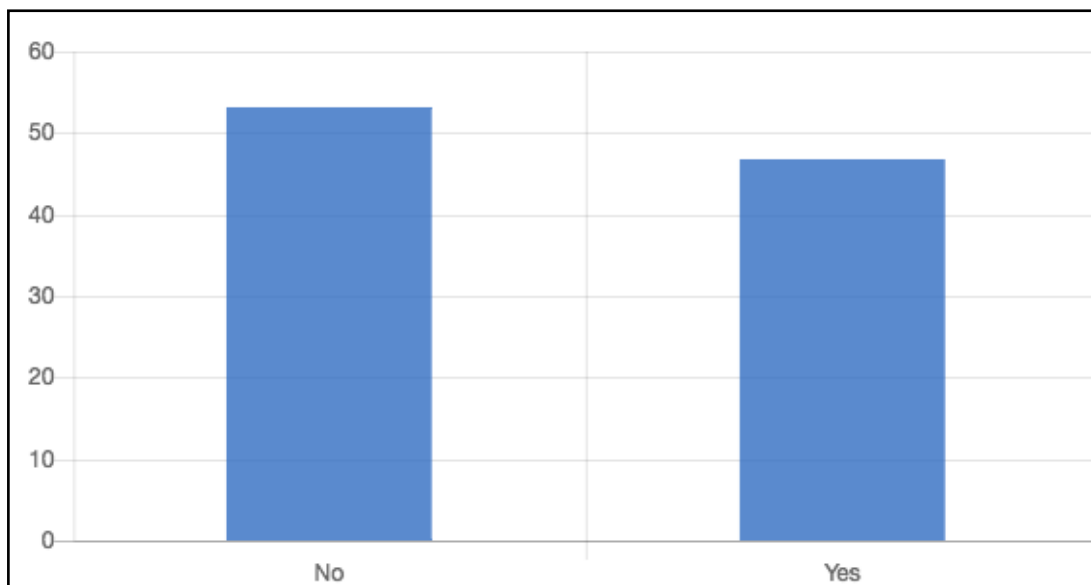
**Apprx amount spent every season on buying inputs for onions**



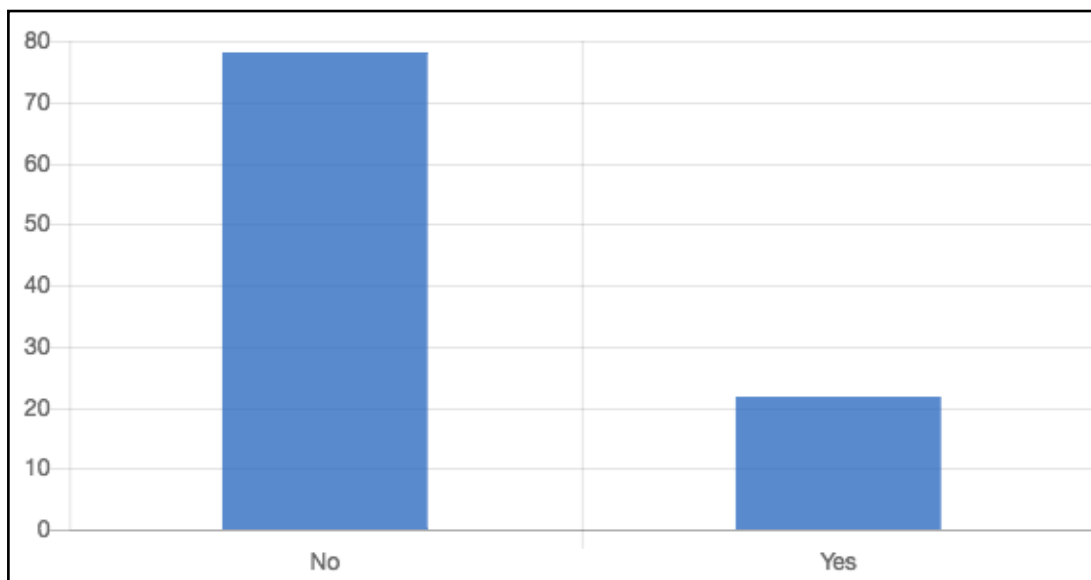
**Harvesting months for onions**



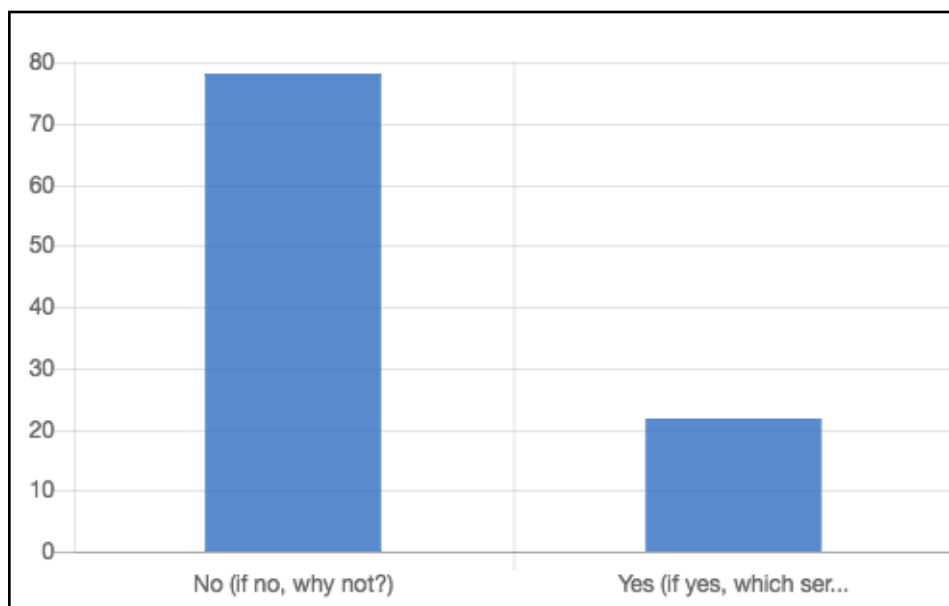
**Avg money saved by the farmers every month**



**Does the farmer own a mobile phone?**

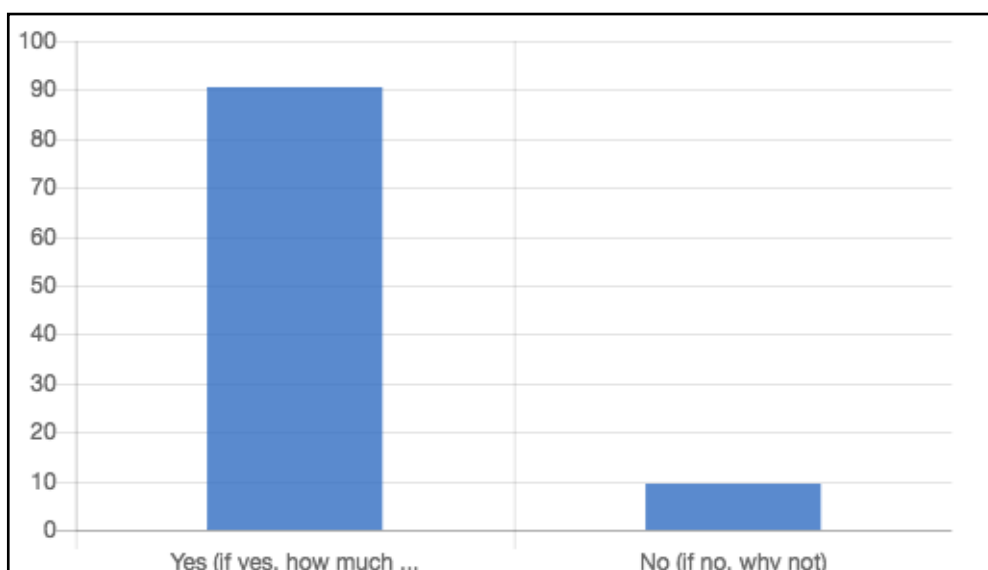


**Has the farmer used mobile money before?**



**Does the farmer use a savings scheme to buy inputs?**





**Would the farmer use iCommit?**

# Challenges

From our first design sprint, we have been able to identify the following challenges that might hinder the adoption of iCommit amongst the end users. Over the course of the pilot implementation, we would be cognizant of these challenges and execute the service in such a way as to limit the effect of these challenges.



## **1.Comfortability with mobile phone usage is still very low amongst smallholder farmers**

Although smartphone penetration rate has been on the rise in Sierra Leone over the past several years, mobile phone usage is still very low amongst smallholder farmers. From our on-field exercise, approximately 53% of farmers did not own a mobile phone. Given how farmers might not be familiar with using mobile phones in their everyday lives, it would be an ethnographic challenge to persuade them to use their mobile phones in a savings scheme.

## **2.There are pertinent issues that are preventing the adoption of mobile money amongst farmers**

Mobile money adoption in Sierra Leone has not caught up to the levels where it is present in other African countries, such as Kenya, Tanzania, and Uganda to name a few. Although the lack of a widespread mobile money agent network is often cited as one of the reasons for this, there are other reasons for this lack of adoption too, such as high cost of money transfers and a general lack of trust in using mobile money as a mode of value. Approximately 78 % of the farmers that we surveyed did not use mobile money. If iCommit is to be expanded successfully across the country, we

would need to build the trust of the farmers about the viability of mobile money.

## **3.The financial ability of farmers to pay for the service is questionable**

Based on the analysis on the financial lives of the farmers that we conducted, it is not clear whether they would be able to pay for the discounted inputs via iCommit without the cost being subsidized. Approximately 56% of farmers save less than LE 50,000 per month, and during the interviews, they pointed out to a lack of finances as the biggest problem that they face in harvesting their crops. Over the course of the pilot implementation, we plan on gaining further understanding on what kind of a pricing structure would actually work, and whether the service would need to be subsidized before it is scaled out across the country.

However, despite these challenges, there was significant enthusiasm around using a service like iCommit, with 90% of the respondents interested in signing up for the pilot run of iCommit. If the above mentioned challenges can be properly addressed, the service could be a gamechanger in providing financial and food security to smallholder farmers in Sierra Leone.





Photo by Kenny Lynch

## Next Steps

The iCommit team is currently developing the back-end software application for iCommit and working on the following:

1. Securing a partnership with a mobile money operator to integrate their mobile money (MM) Application Programming Interfaces (APIs) into iCommit. This API integration is essential to ensure that during the pilot, the farmers would be able to directly deposit money from their MM wallets for the inputs.
2. Securing a partnership with a mobile network operator to gain access to their USSD gateway to build the USSD interface of iCommit
3. Conducting another on-ground validation exercise with a larger group of farmers, to elicit feedback from them on the prototypes of iCommit
4. Finalizing a partnership with the agriculture input suppliers for supplying inputs to the farmers using iCommit at a discounted price

Once the product has been developed and successfully integrated with the mobile money operators, the team would be launching the pilot of the service between April and May 2018.