



EMPOWERING COFFEE FARMERS THROUGH MOBILE PHONE USAGE

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Let's empower the farmers
of Limu Kosa by
introducing mobile phones

We aim to create a positive impact by creating a deep understanding of the lives and dreams of the farmers

4 FOCUS GROUPS

30 FARMERS

60 INTERVIEWS

4

Weeks

2

Villages

11

Women

19

Men

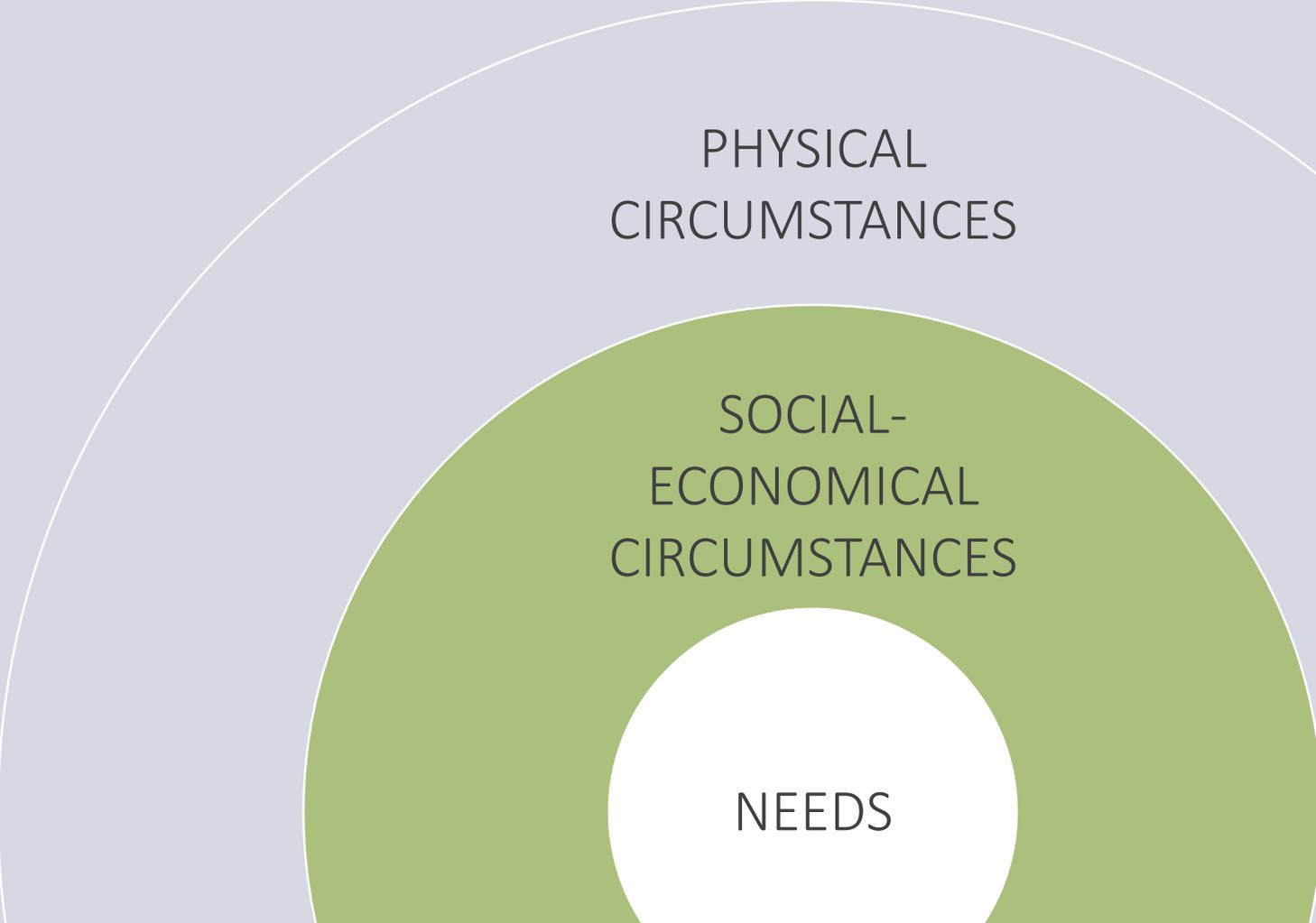
WHAT WE LEARNED

We determined three crucial factors to establish a deep understanding

To create a deeper understanding on how to empower farmers through mobile phone usage, these three aspects have been determined.

These three aspects are both regarding mobile phones, and regarding the farmers day-to-day lives.

The ultimate goal is to empower the farmers by integrating their needs. However, first the physical circumstances and social circumstances needs to be harmonised.



PHYSICAL
CIRCUMSTANCES

SOCIAL-
ECONOMICAL
CIRCUMSTANCES

NEEDS

MEET THE FARMERS



“We need from you one thing: to write down our questions and bring it to the boss. It is not only my question, but from the whole community.”

PHYSICAL CIRCUMSTANCES

- Bad road and bridge
- Majority has solar panels
- Bad phone network
- Buy phone credit at local shop
- Buy phone in Limu

SOCIAL-ECONOMICAL CIRCUMSTANCES

- Mostly dependent on coffee
- ‘Rich’ during harvest season, ‘poor’ rest of the year
- Distrust in local management
- Illiteracy rate is high
- Day-to-day planning mentality

NEEDS

- Being able to ask questions to FC/NL
- Education for children
- Stable income/ better understanding of financial stability
- Owning a mobile phone, preferably a smartphone

ARCHETYPE

PROFILING

MEET THE FARMERS



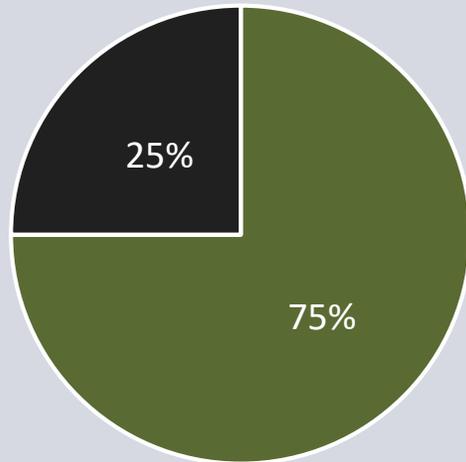


MEET
THE
YOUNG
FEMALE
FARMER

YOUNG FEMALE FARMER IN NUMBERS

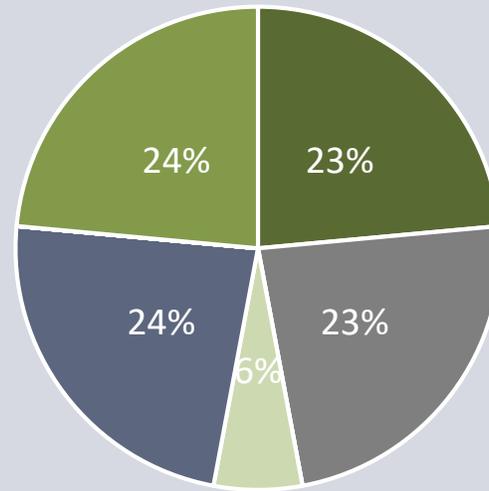
< 40 years old

Can you read?



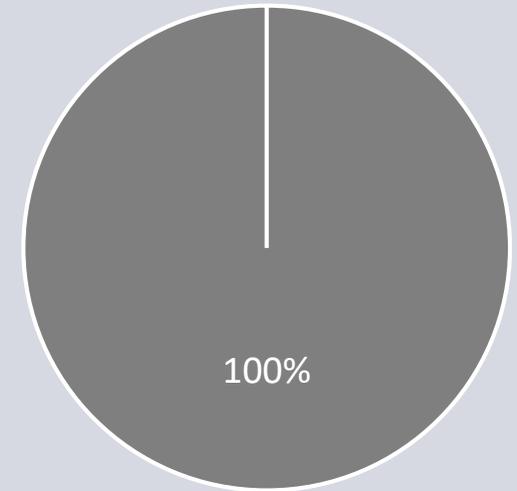
■ Yes ■ No ■ Unknown

Daily activities



■ Preparing food ■ Fetching water
■ Household chores ■ Going to the market
■ Working in the field

Do you possess a mobile phone?



■ Yes ■ No

In addition, women are the care takers for their family. This means that if she has a baby, she will take the baby on her back and carry her during her day. This also includes her time working in the field.

THE YOUNG FEMALE FARMER PROFILE



Use **electricity for lights**
Charges phone at neighbours house or at home
Bought phone at shop in Limu, or received as present (remittance)

Finished at least **elementary school** and **are literate** (to a certain degree)
Considerable amount of daily activities and responsibilities
No current phone possession
Phone possession in the past (broke, or sold)
Share phone with family/husband
Phone usage: **calling, flash light,** calculator, and religious music
Spend < 10 Birr per week on phone credit

Expressed need for phone
View phone possession as important and necessary due to the ability to **contact people**, and as a resource for **information**
Family and education for the children is valued most in their lives
Ideal phone is a smartphone
Expressed that **more money** and **more coffee plants** could improve their daily life

Disclaimer: while young female farmers do not possess their own phone, this data is based on their perception and use of their husbands phone.

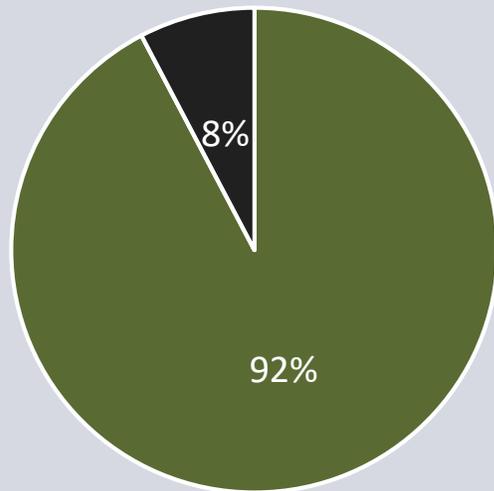
A young man with short dark hair, wearing a white t-shirt, is the central focus. He is holding a white document with colorful illustrations of birds and other elements. The background shows a building with a red door and a corrugated metal roof, with green foliage visible on the right side. The text 'MEET THE YOUNG MALE FARMER' is overlaid on the right side of the image in a serif font, with horizontal lines underlining 'YOUNG' and 'MALE'.

MEET
THE
YOUNG
MALE
FARMER

YOUNG MALE FARMER IN NUMBERS

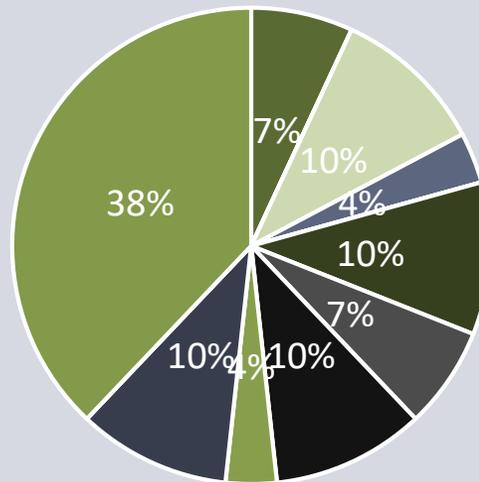
< 40 years old

Can you read?



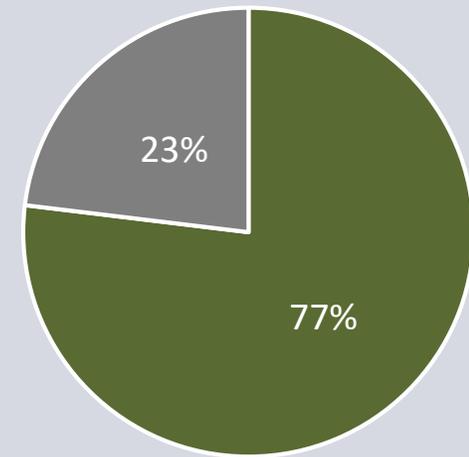
■ Yes ■ No ■ Unknown

Daily activities



■ Preparing food
 ■ Going to the market
 ■ Working at Washing Station
 ■ Guarding cettle
 ■ Working in the field
 ■ Household chores
 ■ Working in the shop
 ■ Going to the mosque
 ■ Guarding field

Do you possess a mobile phone?



■ Yes ■ No

Young male farmers whom wife is not present, takes over the female tasks in the household, e.g. preparing food, and going to the market.

THE YOUNG MALE FARMER PROFILE



Use **electricity for lights and charging phones**

Charges phone at home or at shop in Limu

Bought phone at shop in Limu, or received as present (remittance)

Smart-phone owners have **better network**

Finished **high school** and are **literate** (to a certain degree)

Diverse amount of daily activities and responsibilities

75% possesses a phone (33% **smartphone**)

25% possessed a phone, but got stolen or broke

Majority is **main-user**, some share their phone

Phone usage: calling, flash light, social media, news-updates and tekst-messages

Smartphone owners spend > **30 Birr** per week on phone credit

Not-smartphone owners spend ≤ **30 Birr** per week on phone credit

View phone possession as important and necessary due to the ability to **contact people, work related activities, and news updates**

Family and education for the children is valued most in their lives

Ideal phone is a smartphone

Expressed that **working hard, being a merchant, opening or extending their shop** could improve their daily life

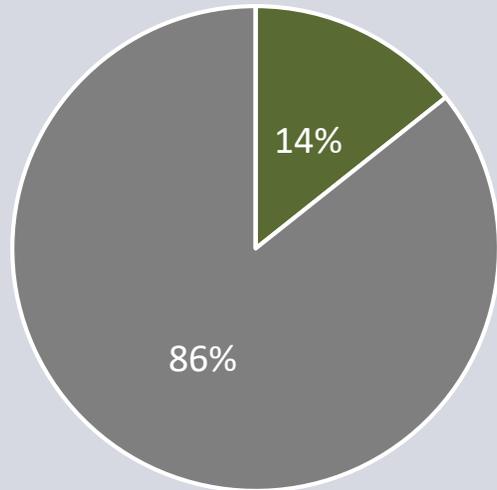


MEET
THE
OLD
FEMALE
FARMER

OLD FEMALE FARMER IN NUMBERS

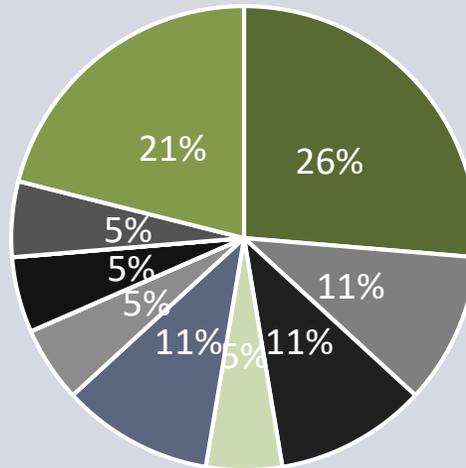
> 40 years old

Can you read?



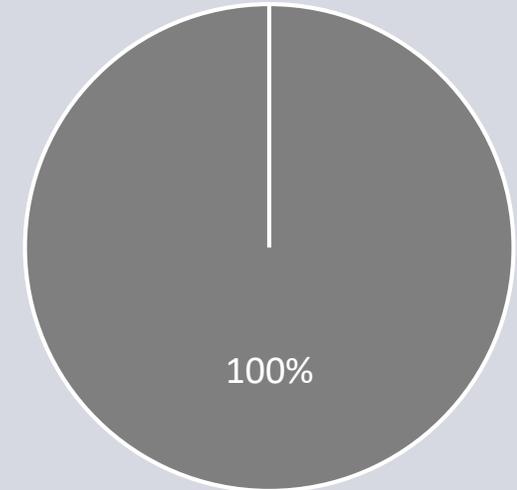
■ Yes ■ No ■ Unknown

Daily activities



■ Preparing food ■ Fetching water
 ■ Collecting wood ■ Household chores
 ■ Going to the market ■ Going to the mill
 ■ Going to the mosque ■ Guarding house
 ■ Working in the field

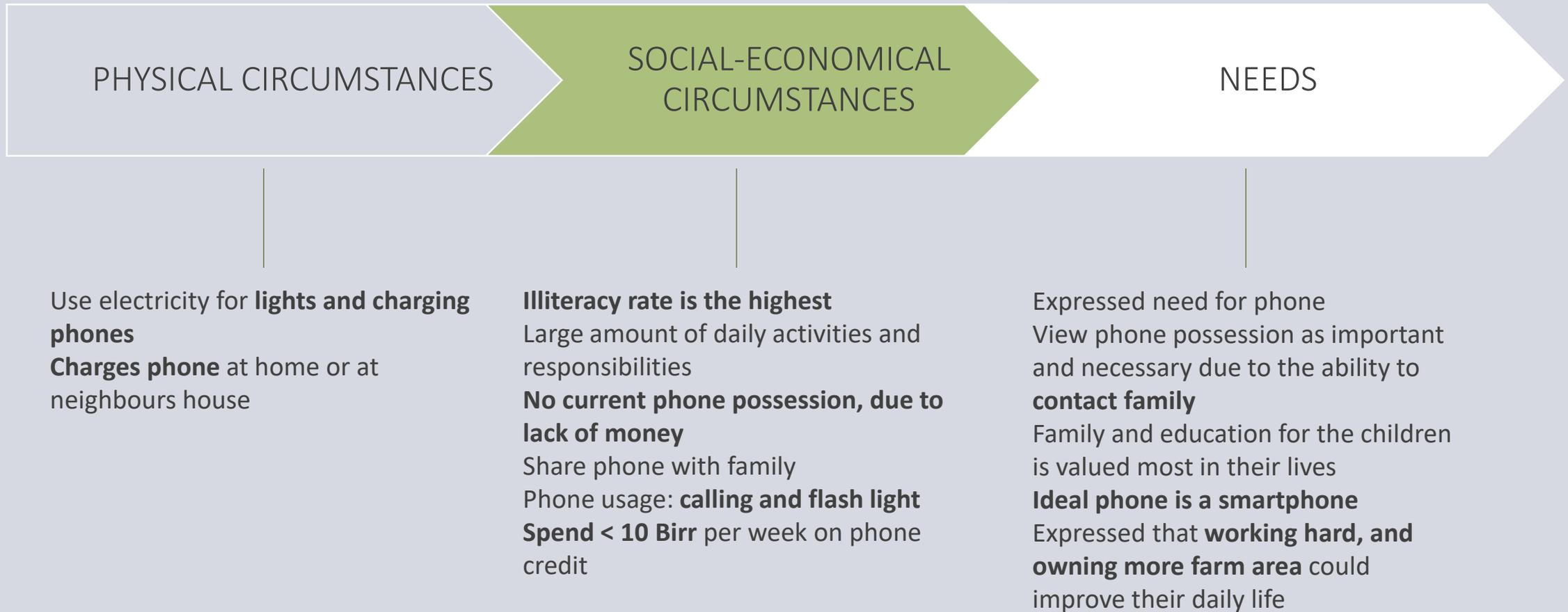
Do you possess a mobile phone?



■ Yes ■ No

Women with a husband and family do not regularly visit the mosque. Instead they guard the house and do their prayers at home

THE OLD FEMALE FARMER PROFILE



Disclaimer: while old female farmers do not possess their own phone, this data is based on their perception and use of their husbands phone.

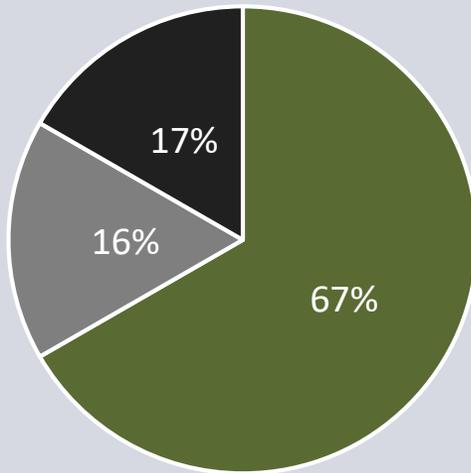


MEET
THE
OLD
MALE
FARMER

OLD MALE FARMER IN NUMBERS

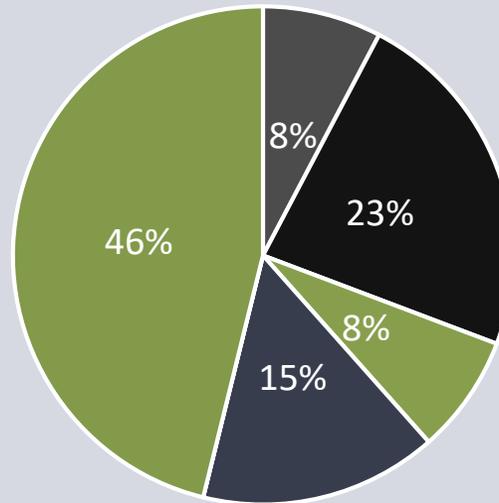
> 40 years old

Can you read?



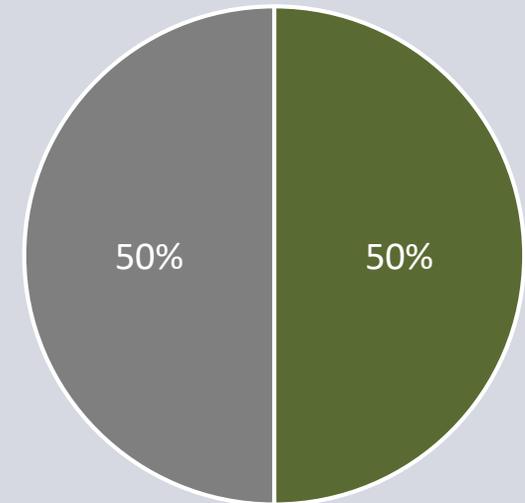
■ Yes ■ No ■ Unknown

Daily activities



■ Working at Washing Station
■ Going to the mosque
■ Guarding cettle
■ Guarding field
■ Working in the field

Do you possess a mobile phone?



■ Yes ■ No

THE OLD MALE FARMER PROFILE

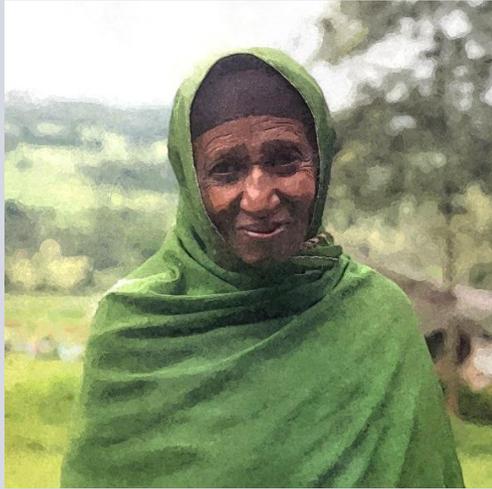


Uses **electricity for lights**
50% has no electricity
Bought phone at shop in Limu

High illiteracy rate
Limited amount of daily activities and responsibilities
50% possesses mobile phone, no smart-phones
50% does not possess a phone due to **lack of money**
Phone usage: **calling**
Spend < **10 Birr** per week on phone credit

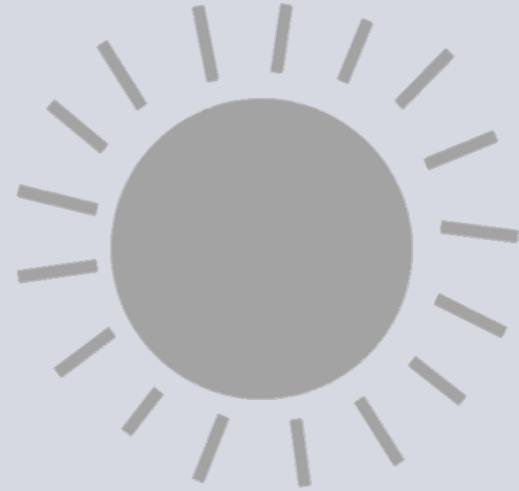
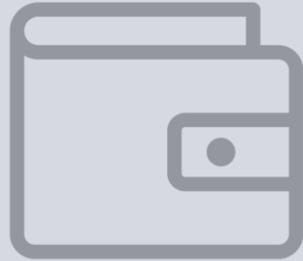
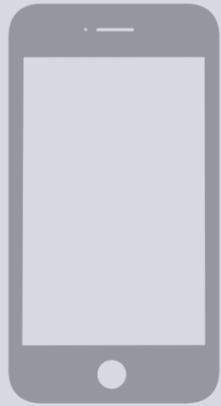
View phone possession as important and necessary due to the ability to **contact family**
Family and education for the children is valued most in their lives
Expressed that **improved housing, and more money** could improve their daily life

FINANCIAL CONTROL



EDUCATED/ LITERATE

THE OPPORTUNITY





APPLICATION

THE APPLICATION



THE FAIRCHAIN SHOP



PERSONAL PROFILE



WEATHER UPDATE



BLOCKCHAIN (VALUE CHAIN)



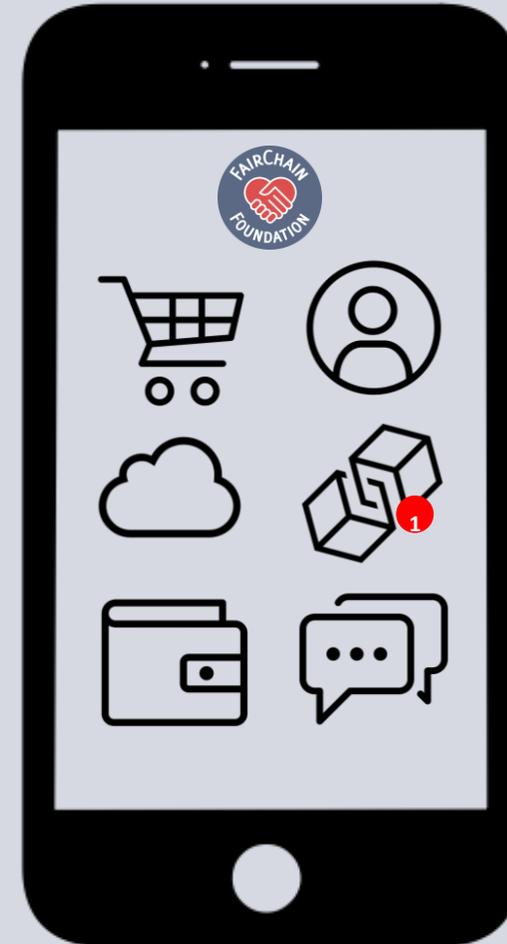
FINANCES OVERVIEW



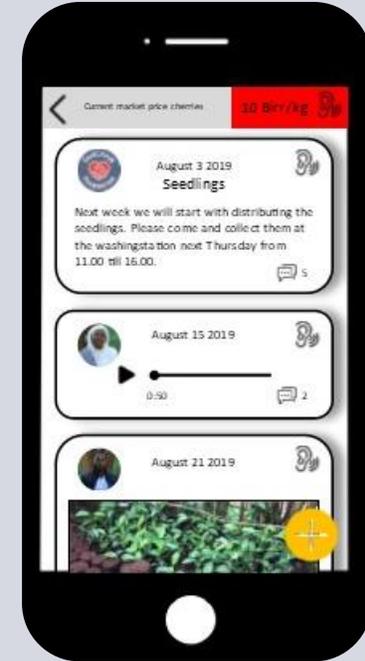
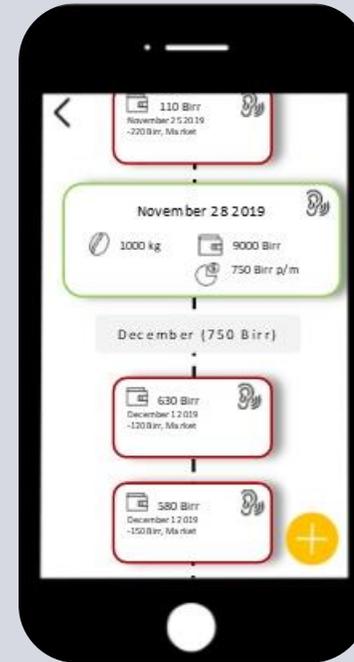
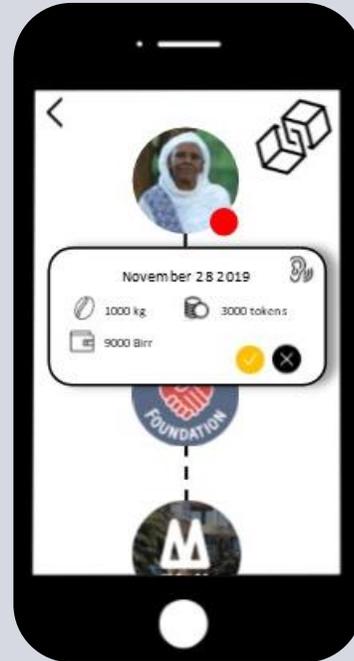
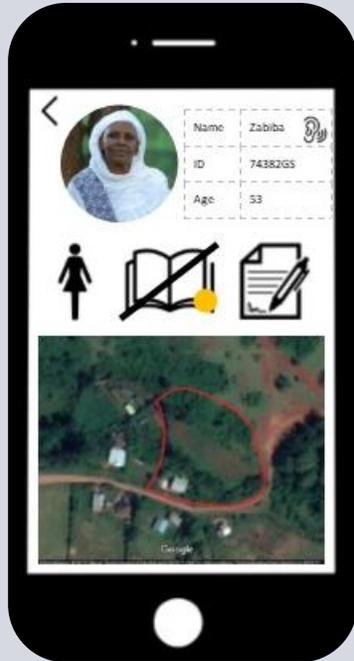
SOCIAL PLATFORM



REWARDING SYSTEM



REWARDING SYSTEM



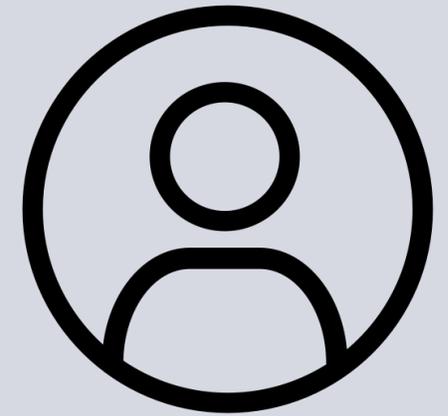
The rewarding system motivates the farmers to use the app to its full potential. E.g. defining whether you are literate/illiterate, accepting or declining blockchain input, create input of financial overview, actively participating in the social platform

THE FAIRCHAIN SHOP



Purchasing products
Overview amount of tokens
Insights in past purchases
Tokens evenly spread between
men and women
Financial independence for
women

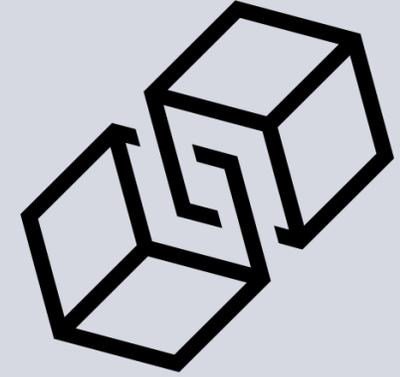
PERSONAL PROFILE



Ownership of own data
Alterations can lead to rewards
Listen function

The use of icons helps illiterate people to understand the application

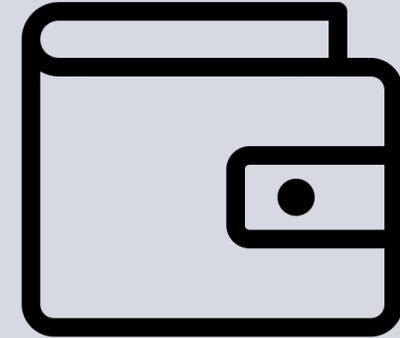
BLOCKCHAIN



Ownership of own data
Insights in value chain
Alterations can lead to rewards
Listen function

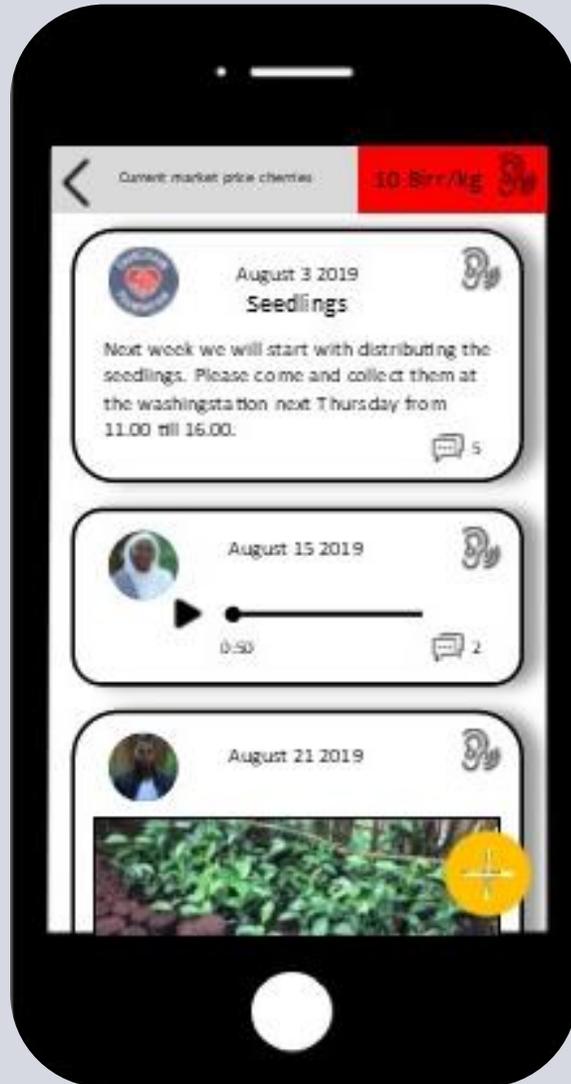
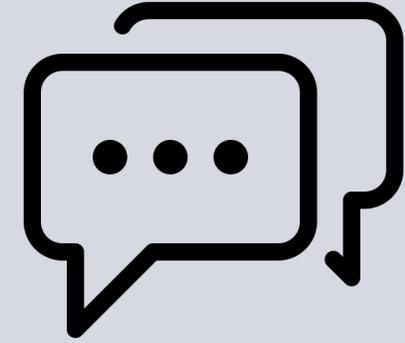
Accepting or declining the new data, establishes insights, power, and ownership of their own data

FINANCES OVERVIEW



Ownership of own data
Insights in purchases
Monthly advices expenses amount
Creates financial awareness and stability
Alterations can lead to rewards
Listen function

SOCIAL PLATFORM



Ability to ask questions and learn about topics regarding phone usage, agricultural practice, and FC application

Direct contact between FC/NL and farmers

Insight in coffee market price

Listen and speak function



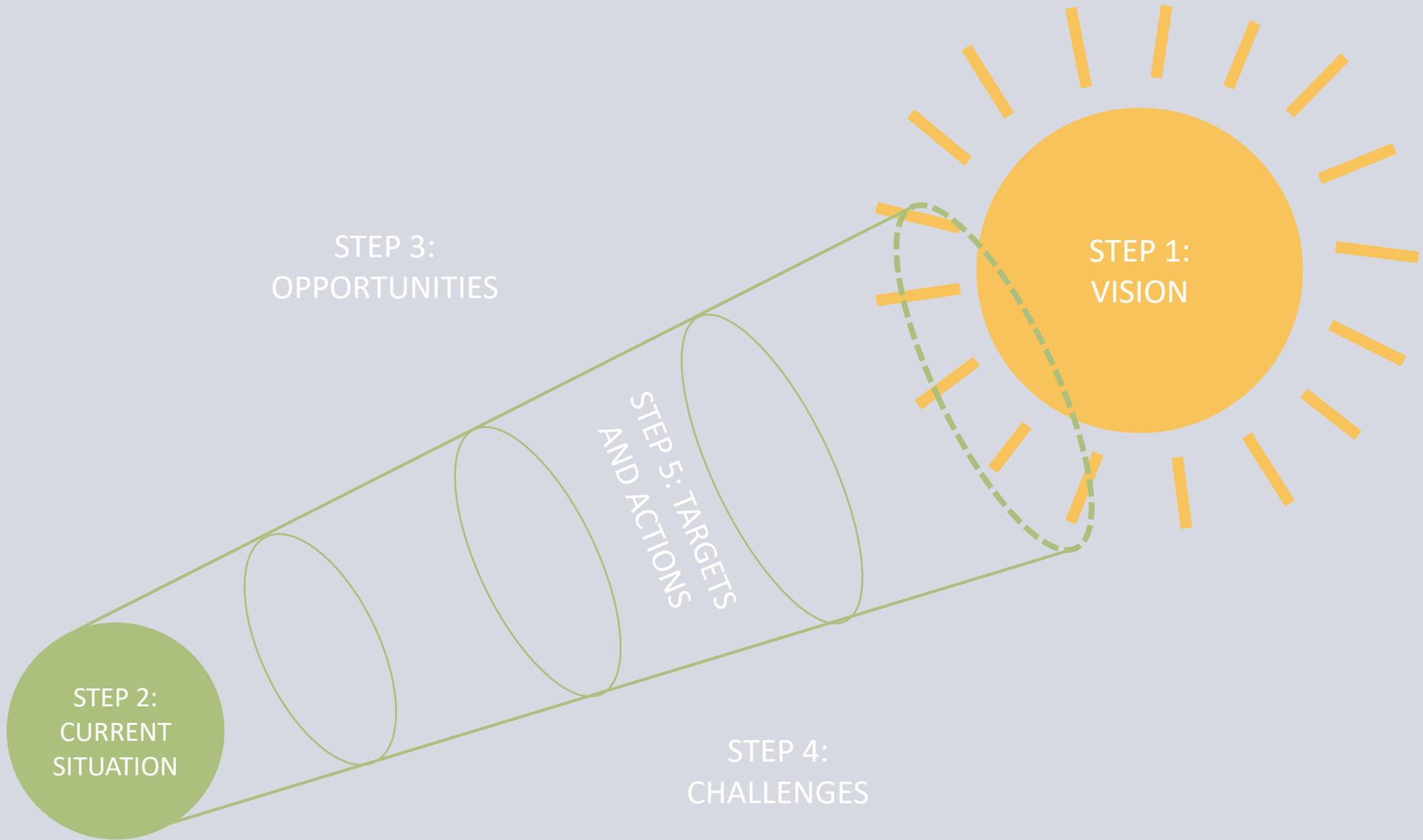
FINANCING

TWO APPROACHES

1. Taxes principle: use $x\%$ of the premium. Take the amount of costs and calculate the percentage of the premium each farmer has to pay for their phone. That way there will be no increase income-gap
2. Sale approach: second phone for half the price → not feasible? The ability to switch from accounts in the application

WORKSHOPS





THE VISION

1

Control over
finances

Awareness, stability,
Independency, thinking
ahead, strategic planning

2

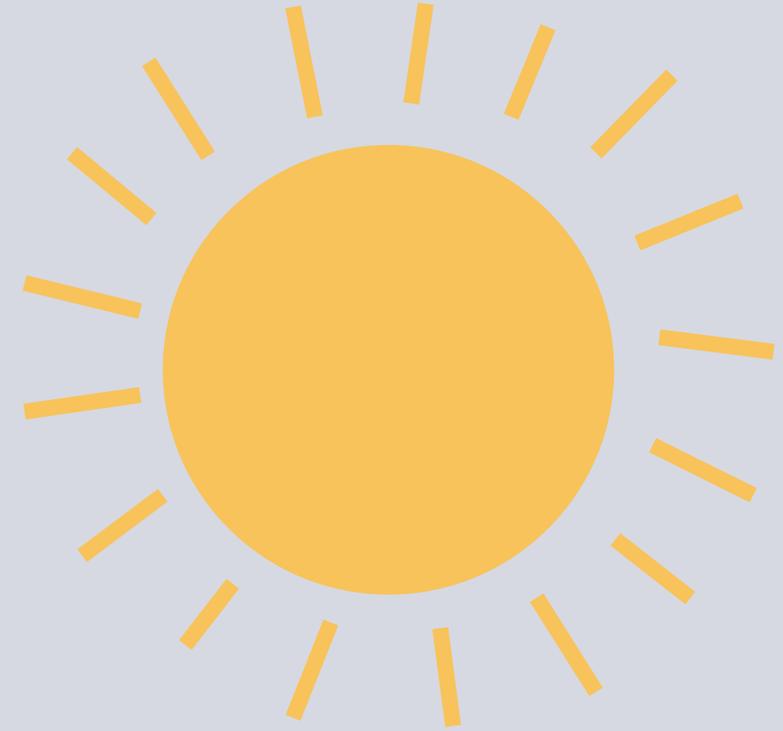
Education
empowerment

Awareness of new
knowledge sources,
sharing knowledge, direct
communication with
FC/NL

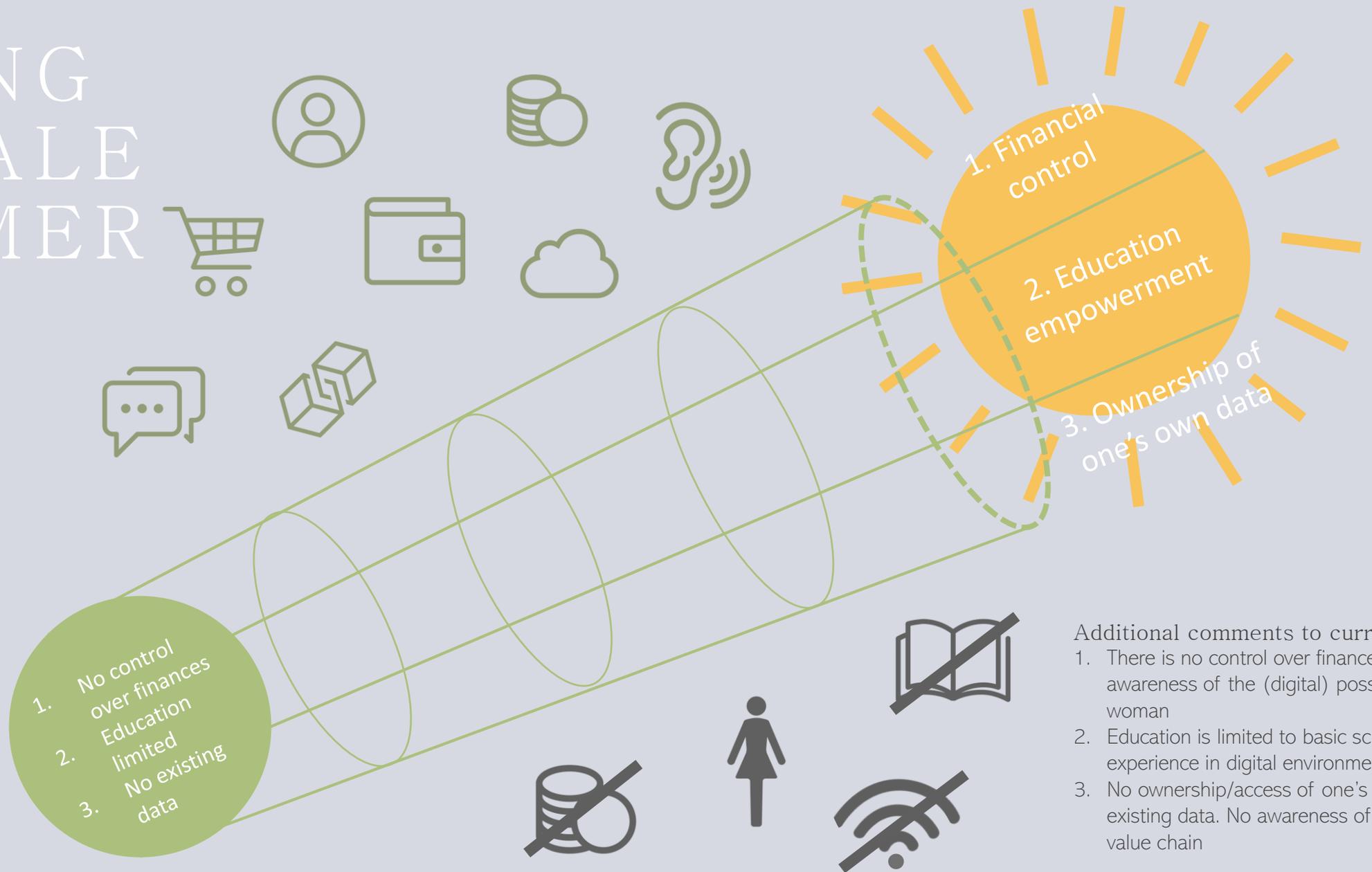
3

Ownership of
own data

Awareness of identity,
insight of value chain and
own position



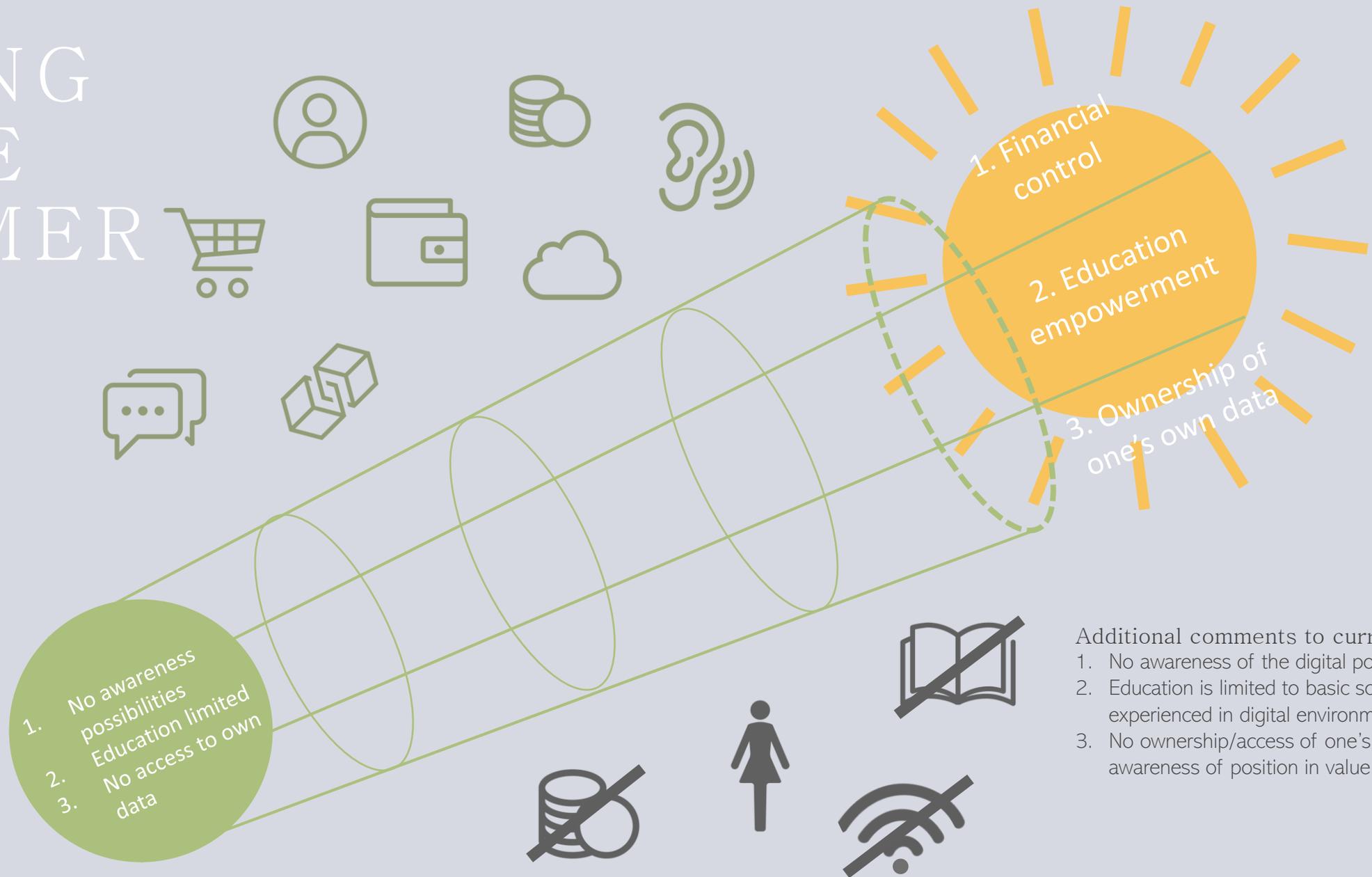
YOUNG FEMALE FARMER



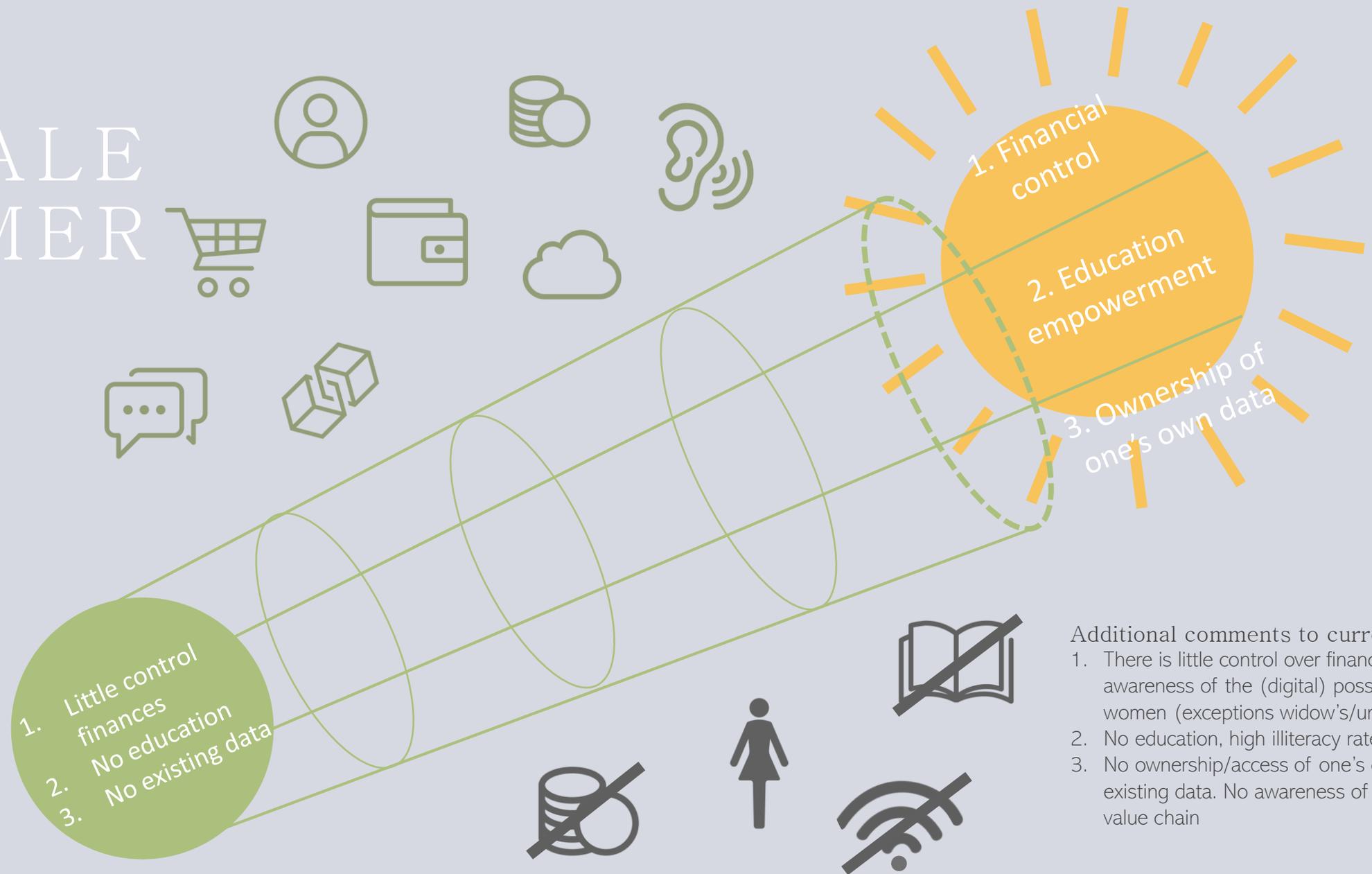
Additional comments to current situation

1. There is no control over finances/no awareness of the (digital) possibilities as a woman
2. Education is limited to basic schooling, no experience in digital environment
3. No ownership/access of one's data, or no existing data. No awareness of position in value chain

YOUNG MALE FARMER



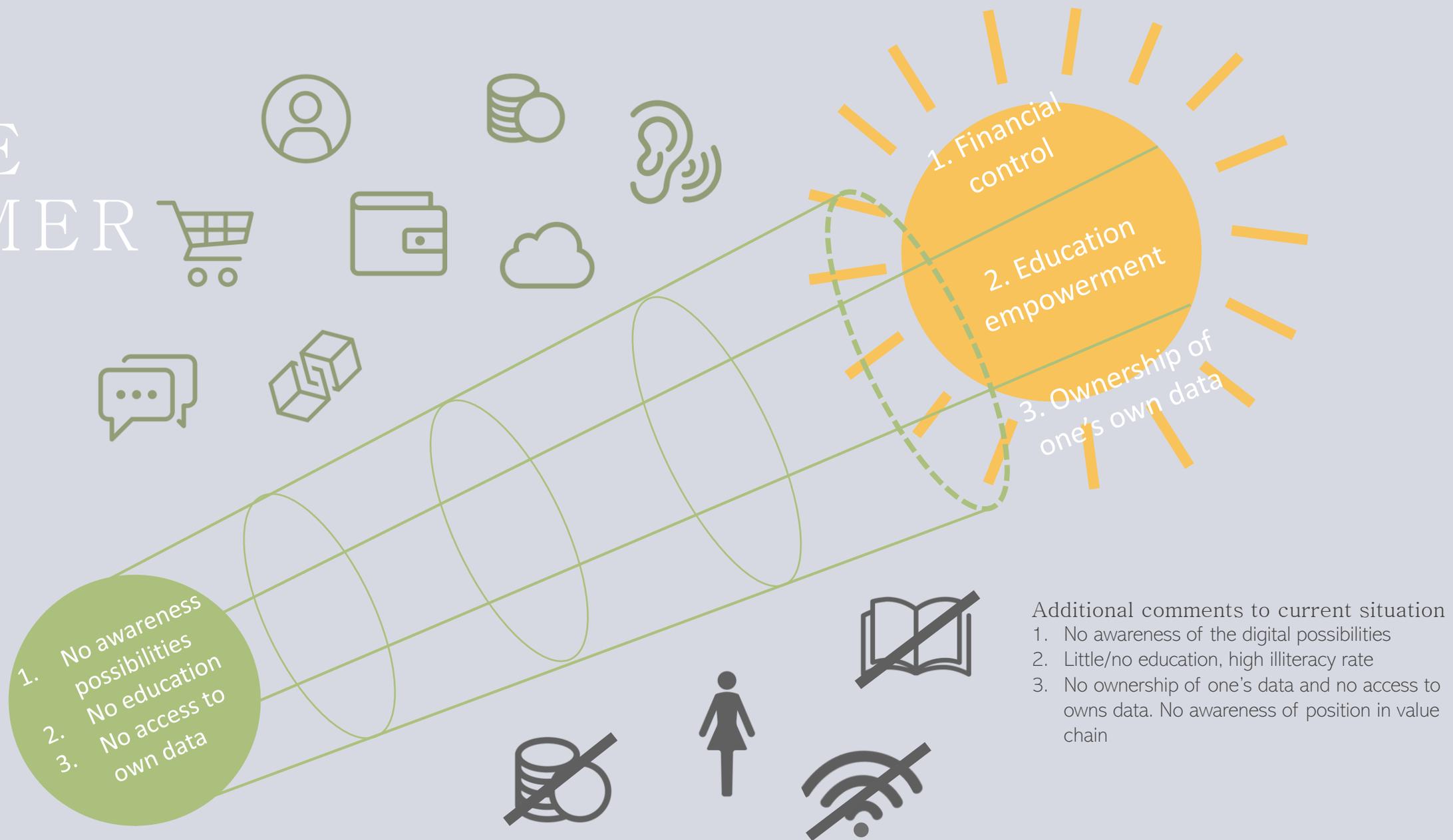
OLD FEMALE FARMER



Additional comments to current situation

1. There is little control over finances/no awareness of the (digital) possibilities as a women (exceptions widow's/unmarried)
2. No education, high illiteracy rate
3. No ownership/access of one's data, or no existing data. No awareness of position in value chain

OLD MALE FARMER



APPENDIX

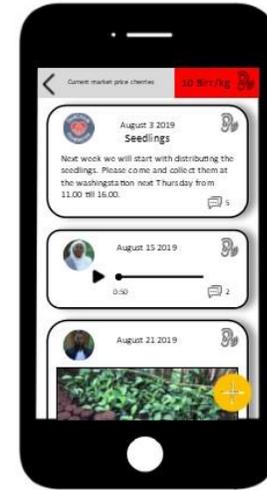
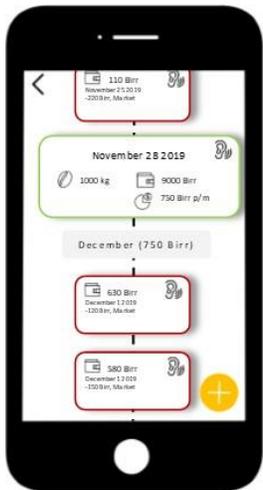
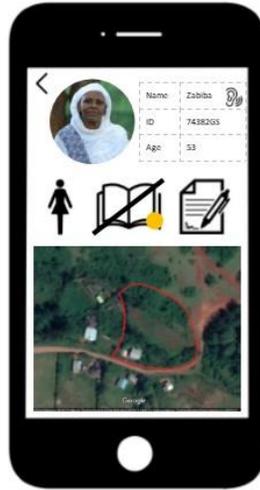


SIDENOTES

The current illustration of the application is in English, this should be adapted in Amharic.

The Ethiopian calander is different, the Ethiopian calander should be adapted.

All icons should be understandable for the farmers. Otherwise they should be explained during the workshop.



Additional documents

- Profiles of male/ female/ old/ young farmers
- Profiles of young male/ young female/ old male/ old female farmers
- Workshop preparations and requirements
- Workshop template for the trainers
- Application with additional information

References

Literature

Asongu, S. A. (2013). How has Mobile Phone Penetration Stimulated Financial Development in Africa? *Journal of African Business, 14* (1), p. 7-18. doi:10.1080/15228916.2013.765309

FairChain Foundation (2018). *FairChain Farming Whitepaper*. Amsterdam, The Netherlands: FairChain Foundation.

Fairtrade Foundation (2018). *Coffee farmers*. London, United Kingdom: Fairtrade Foundation.

International Coffee Organization (2018). *World coffee consumption*. Trade Statistics Table. London, United Kingdom: International Coffee Organization.

Veldhuizen, L. R., Rappoldt, A., Bitzer, V., & Mur, R. (2018). *Understanding agribusiness-based advisory services: Findings of a learning trajectory*. Amsterdam: KIT Royal Tropical Institute.

Reemer, T., & Makanza, M. (2014). Gender Action Learning System: Practical guide for transforming gender and unequal power relations in value chains. Oxfam Novib.(Section 2.3)

Icons references

APP - GENERAL

- Smartphone by cinnamon stick from the Noun Project
- weather by sandiindra from the Noun Project
- Purse by Rockicon from the Noun Project
- shopping by Alfa Design from the Noun Project
- profile by Nicolas Morand from the Noun Project
- forum by fae frey from the Noun Project
- Blockchain by Pablo Rozenberg from the Noun Project
- back by Тимур Минвалеев from the Noun Project
- listening by MRFA from the Noun Project

APP - PROFILE

- Woman by Dirk-Pieter van Walsum from the Noun Project
- read by beth bolton from the Noun Project
- contract by Robiul Alam from the Noun Project

APP-SHOP

- Coins by Rockicon from the Noun Project
- APP-BLOCKCHAIN
- Coffee by I Wayan Wika from the Noun Project
- incorrect by Ragal Kartidev from the Noun Project
- yes by iconsmind.com from the Noun Project

APP-FINANCE

- part business by newstudiodesign10 from the Noun Project

APP - FORUM

- play by Eagle Eye from the Noun Project

APP-WEATHER

- sun by Srinivas Agra from the Noun Project
- Rain by Alice Design from the Noun Project