Empowering women smallholder farmers through digital microinsurance

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ADFI is a pan-African initiative designed to catalyse digital financial inclusion throughout Africa to ensure that 332 million more Africans, 60% of them women, gain access to the formal economy by 2030. Launched in 2019, ADFI works to the African Development Bank's High 5 to Improve the quality of life for the people of Africa, by catalysing inclusive digital financial services through the gender-intentional development of infrastructure, policies and regulations and product innovation. Current ADFI partners are the Agence française de developpement (AFD); the Ministry for the Economy & Finance, France; the Ministry of Finance, Luxembourg; the Bill and Melinda Gates Foundation, the Women Entrepreneurs Finance Initiative and the African Development Bank, who host and manage the facility. For more information: www.adfi.org

About Pula Advisors

Pula Advisors AG (Pula) is an insurance and technology company that designs and delivers comprehensive solutions to protect and improve the livelihoods of smallholder farmers. This includes agricultural insurance and digital services to help smallholder farmers and rural clients endure climate risks, improve their farming practices, and boost their profits. In addition, Pula provides consulting and advisory services for agricultural insurance, climate risk and disaster risk management. For more information, please visit Pula's website at www.pula-advisors.com.

Author:

Rishi Raithatha, Senior Consulting and Research Manager, Pula Advisors

Contributors:

Khalila Salim, Digital Financial Services Specialist, ADFI
Louise Simpson, Communications and Knowledge Management Consultant, ADFI

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Acknowledgements

Abstract

At least 43 percent of smallholder farmers in Africa are estimated to be women. However, they typically have limited choice and knowledge of insurance services that can protect them against agricultural and climate-related risks. Since 2021, Pula and ADFI have been working together on closing the agricultural insurance gender gap. Through funding and technical assistance from ADFI, a human-centred design (HCD) research exercise was carried out in Kenya, Nigeria and Zambia between October and November 2021.

The exercise aimed to uncover how agricultural insurance should be bundled to meet women smallholder farmers' needs, and the types of socio-cultural barriers that insurance products would need to overcome. The research found that around 60 percent of women were aware of agricultural insurance. Despite this knowledge, insurance uptake among women smallholder farmers remains limited. Some reasons for this include limited decision-making power, limited capital availability, low mobility, and societal and cultural barriers that prevent access to services.

The findings from each country concluded that digital technology can play a significant role in raising awareness, and improving the uptake and understanding of agricultural insurance products. In addition, women smallholder farmers can be targeted through female agents, while the media and local role models can be used to promote gender equality. As of 2022, the results of the project are being used by Pula to improve its product offering in each market surveyed, and to raise awareness and take-up of agricultural insurance.

Source: UN's Food and Agricultural Organisation (FAO), ESA Working Paper No. 11-07
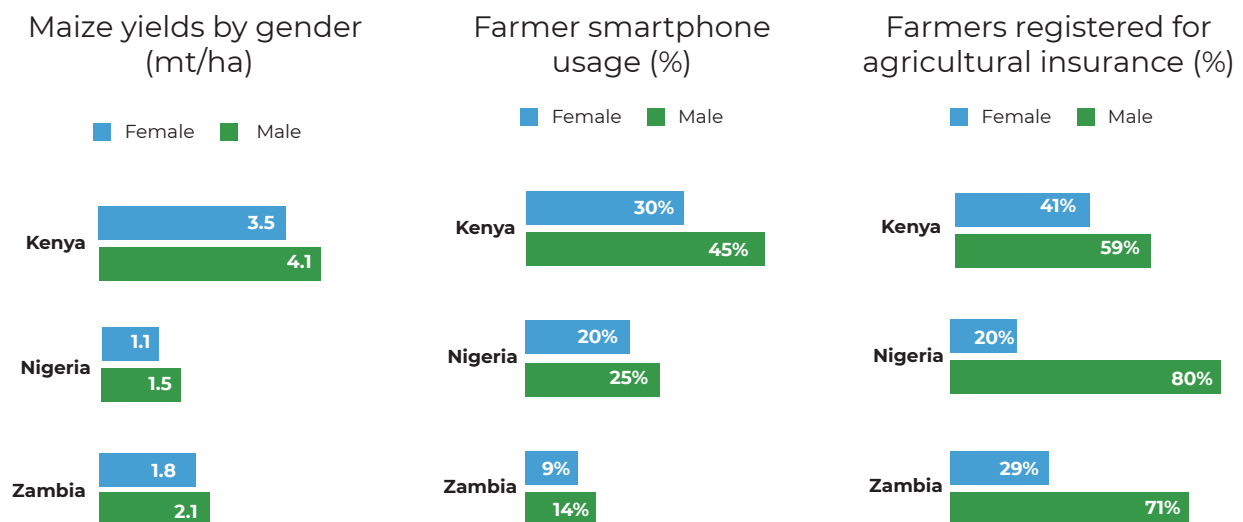
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▶ Female smallholder selling maize and tomatoes in Zambia.
Source: Pula Advisors

1. Introduction

1.1 Background on women smallholder farmers

Smallholder farmers in Sub-Saharan Africa face a range of climate and agricultural risks that can affect their productivity and access to services. Most cultures in Sub-Saharan Africa determine the roles and responsibilities for men and women. This has typically left women smallholder farmers disadvantaged compared to their male counterparts (Figure 1).

Figure 1: Difference in maize yields, smartphone usage and registered insurance policies between male and female smallholder farmers, 2020[1]

Maize yields by gender (mt/ha)

Female / Male

Country	Female	Male
Kenya	3.5	4.1
Nigeria	1.1	1.5
Zambia	1.8	2.1

Farmer smartphone usage (%)

Female / Male

Country	Female	Male
Kenya	30%	45%
Nigeria	20%	25%
Zambia	9%	14%

Farmers registered for agricultural insurance (%)

Female / Male

Country	Female	Male
Kenya	41%	59%
Nigeria	20%	80%
Zambia	29%	71%

Women smallholder farmers are typically affected by a range of barriers. These include:

1. Restricted access, control and ownership of productive resources (e.g., water, land, livestock, and labour)
2. Lower access to credit and insurance
3. Limited control over household incomes
4. Lower use of smartphones (and therefore access to digital solutions)
5. Limited access to agricultural inputs, extension services and markets
6. Lower farm yields compared to male farmers
7. Limited knowledge on insurance solutions (due to low digital and financial literacy)
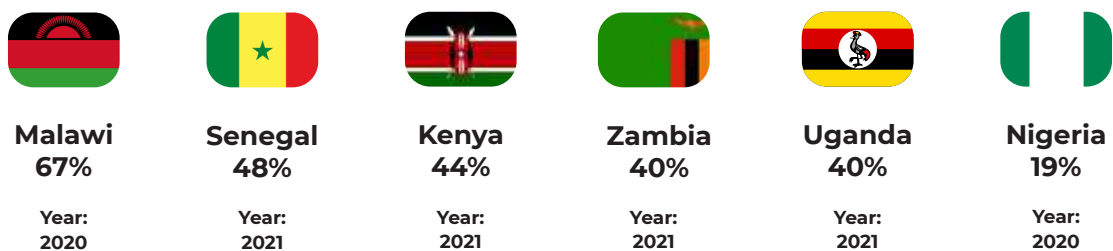
[1] Pula Advisors

Female smallholder farmers sorting maize in Makueni, County, Kenya.
Source: IFAD/Isaiah Muthui

1.2 Background on Pula's work on gender

Around 43 percent of smallholder farmers in Africa are estimated to be women. Despite their numbers, women farmers typically have limited choice and knowledge of insurance services that can cushion them against different shocks. These include agricultural risks, such as pests and diseases, and climate-related risks, such as droughts and floods.

As a result, agricultural insurance uptake remains low among female smallholder farmers in Sub-Saharan Africa. Instead, female farmers continue to rely on less effective resilience coping mechanisms. These include asset depletion or dependency on livestock and savings even when insurance options are available.

Across Pula Advisors' (hereafter Pula) key markets, around 30 percent of insured farmers are women smallholders. Across some of its key markets, Pula insures nearly as many female smallholders as male farmers (Figure 2). In Malawi, nearly two-thirds of all farmers insured are female. In Kenya and Senegal, almost half of all farmers covered are female. However, gender gaps do persist in some markets. For example, in Nigeria, barely a fifth of all farmers insured are women.

Malawi	Senegal	Kenya	Zambia	Uganda	Nigeria
67%	**48%**	**44%**	**40%**	**40%**	**19%**
Year: 2020	Year: 2021	Year: 2021	Year: 2021	Year: 2021	Year: 2020

These differences highlight the need to identify the barriers preventing women from taking up insurance and the opportunities of improving access. To achieve this, Kenya, Nigeria and Zambia – Pula's largest markets – were selected to understand the reasons behind their respective gaps and develop gender-oriented products to scale in each market.

Source: UN's Food and Agricultural Organisation (FAO), ESA Working Paper No. 11-07

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[2] Source: Pula Advisors

1.3 Linking this project to Pula's previous work on gender

Pula worked with external consultants to build on the insights from previous gender initiatives. These include the gender gap study implemented with the Shell Foundation and FCDO in Kenya, Malawi and Zambia[3], which found that few female smallholders had crop insurance. Compared to male farmers, women were:

- Unlikely to have smartphones, limiting access to digital services
- More likely to purchase inputs if insurance was bundled alongside
- More likely to achieve lower yields, despite a higher quantity of seed used per acre (Figure 3)

The study concluded that digital financial services interventions are designed without considering female farmers' needs, exacerbating gender inequality and social exclusion.

Figure 3: Registered farmers' median average yield by country, 2020 (MT/ha)[4]

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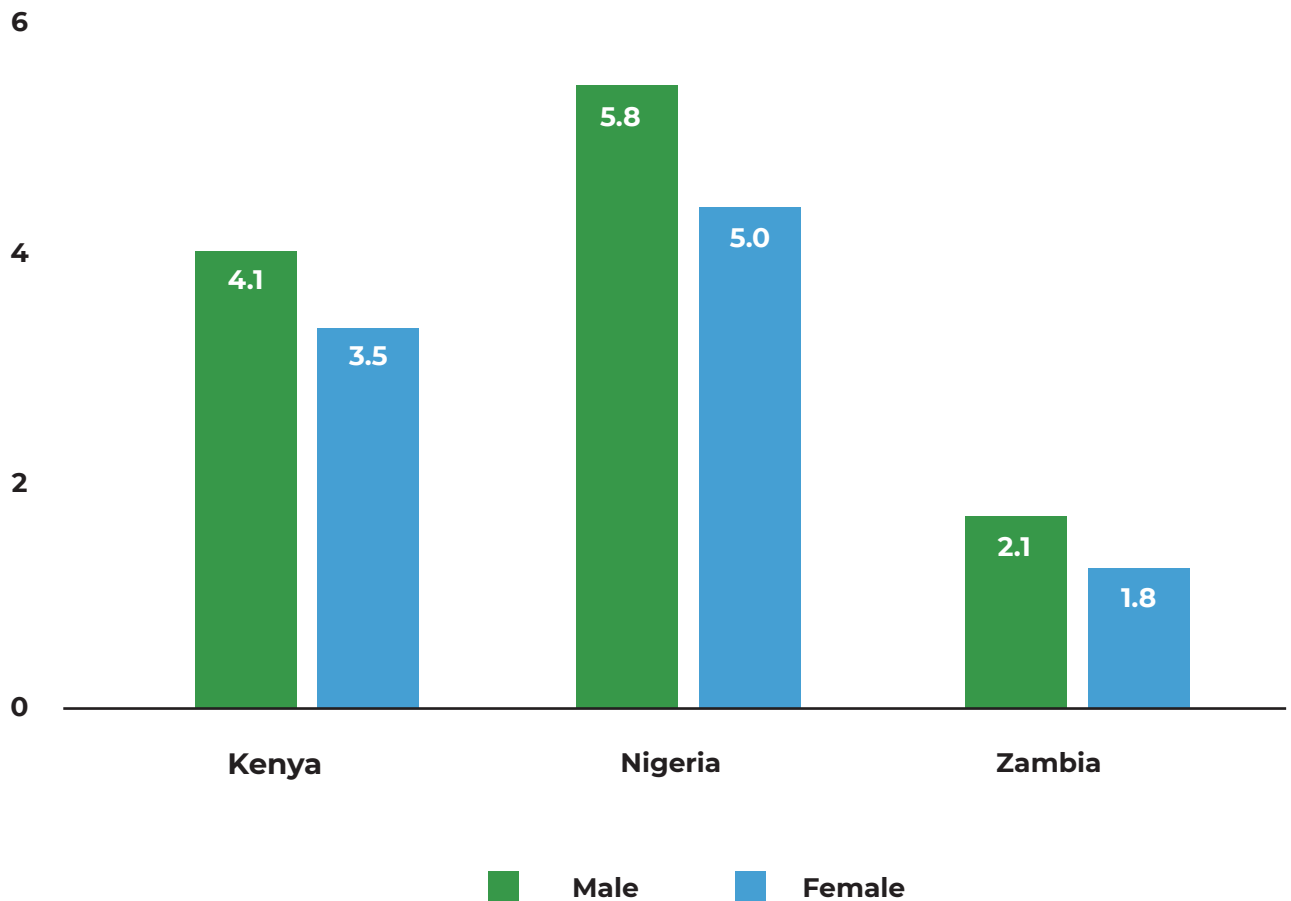
[3] Shell Foundation, (2020). How gender impacts agricultural insurance decision making in emerging markets.

[4] Shell Foundation, (2020). How gender impacts agricultural insurance decision making in emerging markets.

1.4 ADFI's approach to gender inclusive digital financial solutions

ADFI's mission is to catalyse inclusive digital financial services through the gender-intentional development of infrastructure, policies and regulations, and product innovation. Related to this, ADFI seeks to contribute to persistent and new challenges in Africa, such as gender inequality, the impact of climate change on farmers and economic shocks on vulnerable small businesses,

As digital financial inclusion helps women achieve greater equality with men and more control over their lives and assets, promoting gender inclusion across each pillar is a key objective for ADFI with nearly two-thirds of ADFI's projects being gender-intentional and 15 percent gender transformative.

1.5 Collaboration between Pula and ADFI to tackle the gender gap

Following a call for proposals in 2019, Pula was successfully awarded a grant by ADFI to implement a project to better equip women farmers to improve their resilience to climatic and economic shocks.

Pula's proposal stated that their work with farmers had shown "only about 30 percent of women (out of nearly five million farmers) had taken up insurance." Therefore, there was a need to gain better understanding of the barriers preventing women from taking up insurance and the opportunities of improving access.

ADFI's decision to invest in and catalyse the gender-centric process is aligned to its mandate of embedding gender intentionality and transformational approaches in financial inclusion interventions. ADFI recognises that women play a pivotal role in agriculture by contributing to household and national food security. Investing in them can lead to higher social impact. Ensuring that women's productive activity in smallholder farming is protected from climate-based risk, means that they can secure and grow their income, employ others, pay for children's school fees and support their families' livelihoods.

Female smallholder farmers having a conversation in Zambia.
Source: Pula Advisors

Female smallholder farmer buying harvesting bags from an agro dealer for post-harvest storage in Makueni county, Kenya.
Source: IFAD/Isaiah Muthui

ADFI provided funding and technical support for Pula to explore the social, cultural and economic factors that impact female farmers' access to agricultural insurance in Kenya, Nigeria and Zambia. The findings from this study will be used to develop at least three insurance solutions and reach around 360,000 farmers, of whom 180,000 are women.

The three chosen markets are Pula's largest, each of which have gender gaps that are underpinned by unique considerations. This report will outline specific findings from each country, which will determine how Pula will design pilots geared at closing the gender gap.

1.6 Project description

Pula and ADFI have been working jointly on closing the agricultural insurance gender gap. The project commenced with human-centred design (HCD) across Kenya, Nigeria and Zambia in 2021. The project's activities included the following:

1. Develop insurance products and services targeting women farmers by:
   - Researching how insurance products should be bundled to specifically target women smallholders and meet their needs
   - Modifying the customer journey for women, addressing socio-cultural barriers that hinder access to insurance

2. Increase input adoption by farmers and sales by agribusinesses by:
   - Developing SMS-based or social media-based digital solutions for the farmer registration process and agronomy tips
   - Investing in business intelligence solutions that provide data analytics and insights into farmers' behaviours, and developing data driven products, e.g., digital agronomy

3. Close the gender gap through microinsurance products by:
   - Sending digital tips on agronomy and the importance of insurance via SMS or social media, with the aim of reaching 180,000 women farmers
   - Developing at least three insurance products aligned to farmers' needs using a HCD approach

The insights from this research are being applied in the following core project components:
   - Designing and implementing gender-centric insurance products in Kenya, Nigeria and Zambia
   - Disseminating digital agronomy tips via SMS or social media
   - Developing a targeted pilot to contextualise the findings in each market, test the insurance product and scale it

2. RESEARCH METHODOLOGY

Pula adopted a HCD approach to gain a customer-centric understanding of the socio-economic and cultural factors that prevent women smallholder farmers from purchasing insurance. This approach was chosen as it provides a framework to collect and organise evidence on context-specific cultural norms and barriers to uptake. The framework can inform the design and implementation of appropriate and affordable insurance products that can meet the needs of women smallholder farmers.

Key research objectives

- Understand the context-specific cultural norms, institutions and social structures
- Assess the design and implementation of insurance products and services through key stakeholders (project staff, agro-dealers and partners)
- Identify the gendered, cultural, and social barriers to women's use of insurance
- Contribute to closing the gender gap using evidence-based findings that can subsequently be used to develop insurance products targeted at women smallholder farmers

The same approach was applied to key stakeholders that work with Pula to provide insurance to farmers. The study used a multistage sampling procedure, as follows:

1. Geographical areas where Pula has been offering insurance were selected
2. Factors to select farmers were selected, based on crops grown, previous or existing use of insurance and agro-ecological zone location
3. Women smallholder farmers were selected at random through women farmer co-operatives and other aggregators

Agro-dealer recording the names of farmers who have collected farm inputs from her in Machakos county, Kenya.
Source: Pula Advisors

Potential respondents were informed in advance of the survey by Pula and extension staff on the ground - both verbally and through mobile. Stakeholders were contacted via email. The farmers selected were found to grow maize, wheat, sunflower, cotton, groundnuts, soya beans, sugarcane, beans, potatoes, sorghum, bananas, cassava and green grams.

Data collection approach

The project used a mixed-method (qualitative and quantitative) approach in each market to collect data, and to understand farmers' behaviour, experiences, challenges and needs. For qualitative data collection, the study relied on participatory methods such as focus-group discussions and key informant interviews with selected stakeholders. The data was collected digitally, using Pula's farmer data management system. The purpose of this phase was to inform the development of a quantitative survey.

A survey was used during the quantitative data collection phase to interview women smallholder farmers and other stakeholders (such as agro-dealers). The survey's questions centred around gender equality, social inclusion, and the participation of women in insurance programmes. Selected field staff (enumerators) were trained on how to deploy the survey, before leading the data collection effort across specific locations in each country.

Data collected

This study collected data on asset ownership, physical mobility, access to financial services, agricultural risks, access to agricultural insurance, state and policy engagement in agricultural insurance, and access to agricultural service companies.

3. PROJECT RESULTS

Pula carried out the research in Kenya, Nigeria and Zambia between October and November 2021. On average, the research revealed that nearly 60 percent of women were aware of agricultural insurance (Figure 4). However, this knowledge has not translated into increased insurance uptake among women smallholder farmers. Some reasons for this include:

- Limited decision-making power
- Limited capital availability
- Low mobility
- societal and cultural barriers - such as lack of capital and decision-making power and lower social mobility - that prevent access to services

Figure 4: High-level results from farmer surveys in Kenya, Nigeria and Zambia

	Kenya	Nigeria	Zambia
Awareness of agricultural insurance	61%	59%	62%
Lack access to agronomic knowledge	77%	63%	66%
Mobile phone ownership	95%	88%[5]	98%
Mobile money account used	92%	7%[6]	80%
Women smallholders surveyed	239	480	253
Areas covered	4 counties	6 states	6 provinces

In Kenya and Zambia, women smallholders faced similar challenges when purchasing agricultural insurance (Figure 5). Some of these challenges applied to women farmers in Nigeria, particularly around low rates of literacy, limited access to information and low social mobility due to a lack of spousal support. In Kenya and Zambia, women smallholder farmers were found to have similar levels of access to information and rates of digital inclusion. The challenges in Nigeria are more pronounced, particularly in male-dominated areas. This can be somewhat attributed to cultural factors, with women in Muslim-majority areas lacking the same opportunities as men.

[5] This is a proxy figure sourced from the 2022 GSMA Mobile Gender Gap Report.

[6] This is a proxy figure for mobile money account ownership from the 2022 GSMA State of the Industry Report on Mobile Money.

Figure 5: Challenges faced by women smallholders when purchasing insurance

1   Lower digital and financial literacy compared to men

2   General lack of training and awareness of insurance services among women

3   Difficulty in accessing information on insurance products and services

4   Lack of motivation to buy insurance due to lack of spousal support

5   Lack of capital and lack of decision-making power

6   Lower social mobility - some married women need permission to leave home

Across each country, women smallholders expressed similar preferences around the cost of insurance premiums to be reduced further. Lower premiums are likely to attract more farmers to the product. In addition, woman farmers suggested advocating the government for subsidies or further subsidies where some support was already being offered. Farmers in Kenya and Zambia can receive subsidised inputs through government-led input support schemes.

4. COUNTRY INSIGHTS

4.1 Kenya

In Kenya, 239 women smallholders were interviewed along with 13 agro-dealers (Figure 6). Key informants approached for an interview include Safaricom's Digifarm.

Figure 6: Farmers sampled in Kenya by region

County	Sub-county	Farmers surveyed	Agro-dealers surveyed
Busia	Nambale	61	4
Kitui	Kitui	60	2
Taita Taveta	Taveta	60	5
Embu	Mbeere North and Runyenjes	58	2

The choice of each county (Figure 7) was based on women's participation in agriculture, the county's agro-climatic conditions, and the prevalence of insurance products. Busia and Embu are highland counties with agricultural potential and high levels of rainfall. In contrast, Kitui and Taveta are lowland counties with low agricultural potential and low precipitation.

Figure 7: Target locations in Kenya
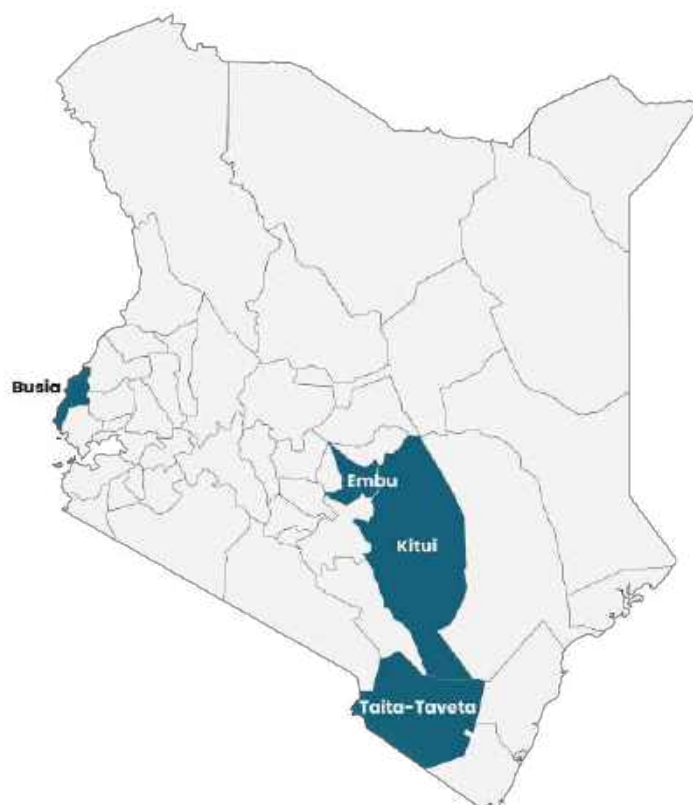
Summary of findings:

- Around 61 percent of women smallholder farmers surveyed in Kenya were aware of agricultural insurance and its importance.

- Nearly 60 percent of insured farmers were unsure about the type of cover the insurance product offered them: around 45 percent believed the insurance covered crops, seeds and fertilisers, while around 12 percent thought the insurance was designed only to cover crops.

- 95 percent of women own mobile phones, while 92 percent have mobile money accounts. Of these, around 95 percent of women preferred receiving pay-outs through the mobile accounts.

- 93 percent of agro-dealers surveyed indicated that women were more likely to purchase insurance than men for the following reasons:
  - Most smallholders are women and access land through marriage
  - Women are more attached to farming than men
  - In contrast to overall awareness among women, most of the women had more knowledge about insurance than men

- Women faced different challenges in purchasing insurance due to the following reasons:
  - General lack of training and awareness of insurance services
  - Women lacked capital and were perceived to have poor time management
  - Agro-dealers believe women have difficulties in understanding insurance
  - Lack of motivation to buy insurance
  - Women cannot access information easily

An enumerator taking and confirming yield measurements from a female maize farmer in Kirinyaga county, Kenya.
Source: Pula Advisors

4.2 Nigeria

In Nigeria, 480 women smallholder farmers were interviewed across six states (80 per state) covering the country's geo-political zones (Figure 8).

Figure 8: Farmers sampled in Nigeria

Region	State	Farmers surveyed
North-east	Adamawa	80
North-west	Nasarawa	80
North-central	Kano	80
South-south	Akwa Ibom	80
South-east	Enugu	80
South-west	Oyo	80

The choice of each state (Figure 9) was based on the level of female participation in agriculture, the number of female co-operatives, and government intervention in gender-related agricultural activities in each state. In addition, twenty key informants were interviewed, from the Federal Ministry of Agriculture and Rural Development, LeadWay Insurance, Royal Exchange General Insurance, IFAD, several women's co-operatives (Pleroma, Dibugwu and Chidubem), Keystone Bank, community leaders and agro-dealers.

Figure 9: Target locations in Nigeria

Summary of findings

- Around 59 percent of respondents knew about insurance in general and its importance to agriculture; 76 percent of women surveyed lack insurance to cover losses resulting from natural disasters.

- Nearly two-thirds of respondents (63 percent) lacked the knowledge on how to access agricultural insurance, while over half (59 percent) lacked awareness on agricultural insurance.

- High rate of mobile ownership (80 percent), although mobile money is not as prevalent in Nigeria as it is in Kenya and Zambia.

- At least 73 percent of women respondents stated that there are no insurance companies around them, while 75 percent reported that it is difficult to access insurance representatives in their location.

- Around 83 percent of women smallholders would like the government to provide subsidies for insurance premiums.

- Access to information is vital. Agronomic advisory can be provided through mobile phones (SMS, USSD and IVR), radio broadcasts, and call centres as these are wide-reaching and readily accessible to farmers regardless of their location.

A Smallholder farmer with an enumerator in a rice farmer survey in Kaduna state, Nigeria.
Source: Pula Advisors

4.3 Zambia

In Zambia, 253 women farmers were interviewed along with 12 agro-dealers across six provinces (Figure 10 and 11).

Province	District	Farmers surveyed	Agro-dealers surveyed
Eastern	Chipata	60	2
Central	Kabwe	38	2
Northern	Kasama	39	2
Southern	Livingstone	35	2
Western	Mongu	34	2
North-Western	Solwezi	47	2

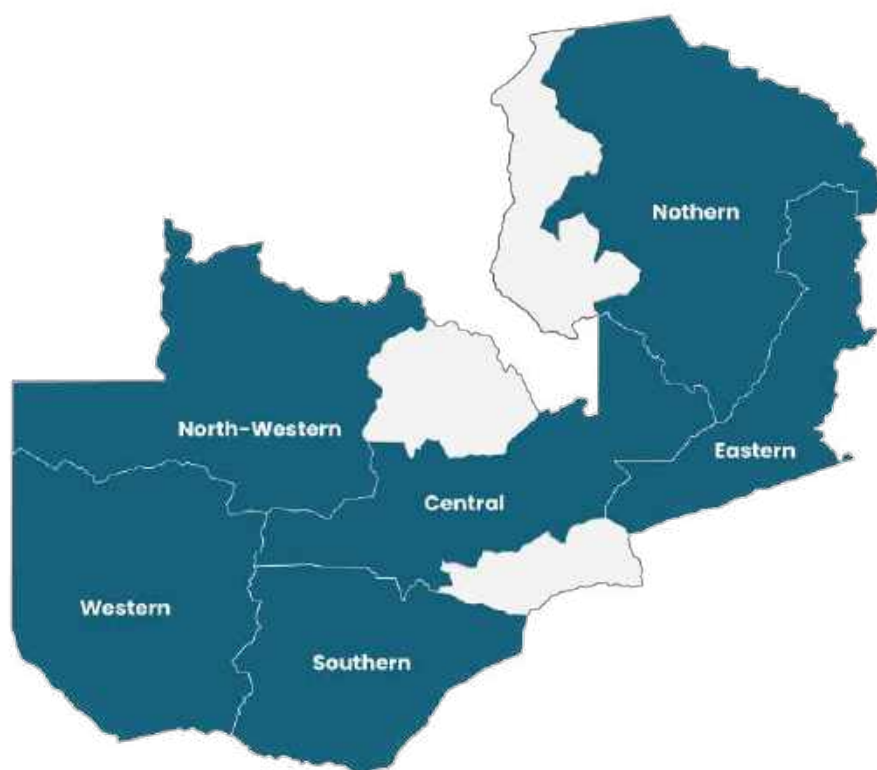**Figure 10: Farmers sampled in Zambia by region**

Figure 11: Target locations in Zambia
Summary of findings:

- Around 62 percent of women smallholders surveyed knew about agricultural insurance and its importance.

- Nearly 91 percent of agro-dealers surveyed cited that men purchased insurance more than women because:

- 91% of agro-dealers cited that men purchased insurance more than women because:
    - Men had more access to information than women and were more knowledgeable about insurance
    - Men had higher literacy levels
    - Men hold the decision-making authority in their households

- Around 98 percent of women owned a mobile phone, while 80 percent had a mobile money account.

- At least 66 percent of women farmers lacked the agronomic knowledge required to boost productivity.

Men and women faced different challenges in purchasing insurance. According to 33 percent of the agro-dealers surveyed, there were several reasons for this:
- Women had less information on insurance products and services
- Women lacked capital and were not the primary decision makers
- Digital and financial literacy remains lower for women than men
- Some male spouses are not supportive of women's agricultural enterprises, dampening their partners' motivation to buy insurance
- Female participation in agriculture in low due to restricted mobility, especially for married women who must request permission to leave their homes

A female smallholder farmer sieving maize, Zambia.
Source: Pula Advisors

5. RECOMMENDATIONS

Based on the findings from each country, digital technology can play a significant role in raising awareness, and improving the uptake and understanding of agricultural insurance products (Figure 12).

Figure 12: Recommendations on using digital technology

Country	Existing conditions for use	Potential use
Kenya	Mobile-based technology, such as SMS[7], IVR[8] and USSD[9], and radio have previously been used to target smallholder farmers in Kenya.	IVR can be used to target specific groups of farmers that might have low literacy levels. IVR messages are not designed to be saved, so other approaches should be considered too, such as radio, SMS and calls from a dedicated call centre.
Nigeria	Many female smallholder farmers had either used a mobile phone or had access to one. Farmer surveys identified mobile and radio as wide-reaching and easily accessible to farmers regardless of location.	Agronomic tips could be sent to female smallholder farmers through mobile phones, radio broadcasts, and call from dedicated call centres.
Zambia	Many female farmers have mobile phones and are accustomed to receiving SMS for information. However, digital literacy levels vary among farmers.	Based on digital literacy levels, a USSD-based application could be developed to offer agronomic advisory, weather information and other tips. Where literacy levels are low, a radio script should be piloted in some regions and later rolled out to all areas to cover.

Beyond using digital technology to improve awareness and uptake of insurance, the research findings produced a range of recommendations by country. This included targeting women smallholder farmers though female agents, using the media to promote gender equality and using local role models as agents for change (Figure 13).

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[7] SMS (Short Message Service) is a text messaging service component of most telephone, Internet, and mobile device systems

[8] Interactive voice response (IVR) is a technology that allows humans to interact with a computer-operated phone system using voice and tones input via a keypad..

[9] Unstructured Supplementary Service Data (USSD) is a real-time interaction service that allows businesses to display text on a user's mobile handset.

Figure 13: Summary of recommendations by country

|	Kenya	Nigeria	Zambia
Develop a **gender-disaggregated database** with a monitoring, learning and evaluation programme that accounts for female inclusion.	Yes		Yes
Identify different women in the farming communities to conduct **gender-sensitive assessments for training** on current and emerging insurance services and products.	Yes		
Ensure that **women are part of the product design process from end-to-end**, to help identify gender-appropriate entry points and distribution channels.	Yes		Yes
Train female farmers on the importance of co-operatives and joining a national farmer association.		Yes	
Train more female facilitators/extension agents to use as a means of improving women's ability to attend training sessions.	Yes		
Generate **evidence-based literacy materials** that are understood by women and men, and information dissemination approaches that reach out to all categories effectively and cater for language barriers and literacy levels.	Yes	Yes	Yes
Engage local role models as agents for change. Through their own actions, influential role models may persuade people to adopt insurance products.	Yes		Yes
Modelling positive behaviour: Use the media and entertainment videos to provide educational messages on gender equality and inclusivity in agricultural insurance to improve skills and confidence among women.	Yes		Yes
Undertake a **nationwide sensitisation campaign** on agricultural microinsurance and its benefits, as a means of mitigating losses.		Yes	Yes
Use bottom-up consultations to **pilot carefully designed products** that focus on the right crops for both women and men.			Yes
Publicise government subsidies for smallholder women.		Yes	Yes
Consider a **partner-agent model between the insurer and a local agent**. The insurer can develop the product, while the local agent can use its experience of reaching female farmers, based on pre-existing networks and trust.		Yes	Yes
Provide **agronomic advisory** through a digital platform, including weather alerts, to minimise agricultural losses. Where digital platforms cannot reach women smallholders, traditional approaches – such as radio – should be maintained.		Yes	
Create insurance bundles **that can be marketed through third** parties for agro-dealers to sell to smallholder women farmers.		Yes	
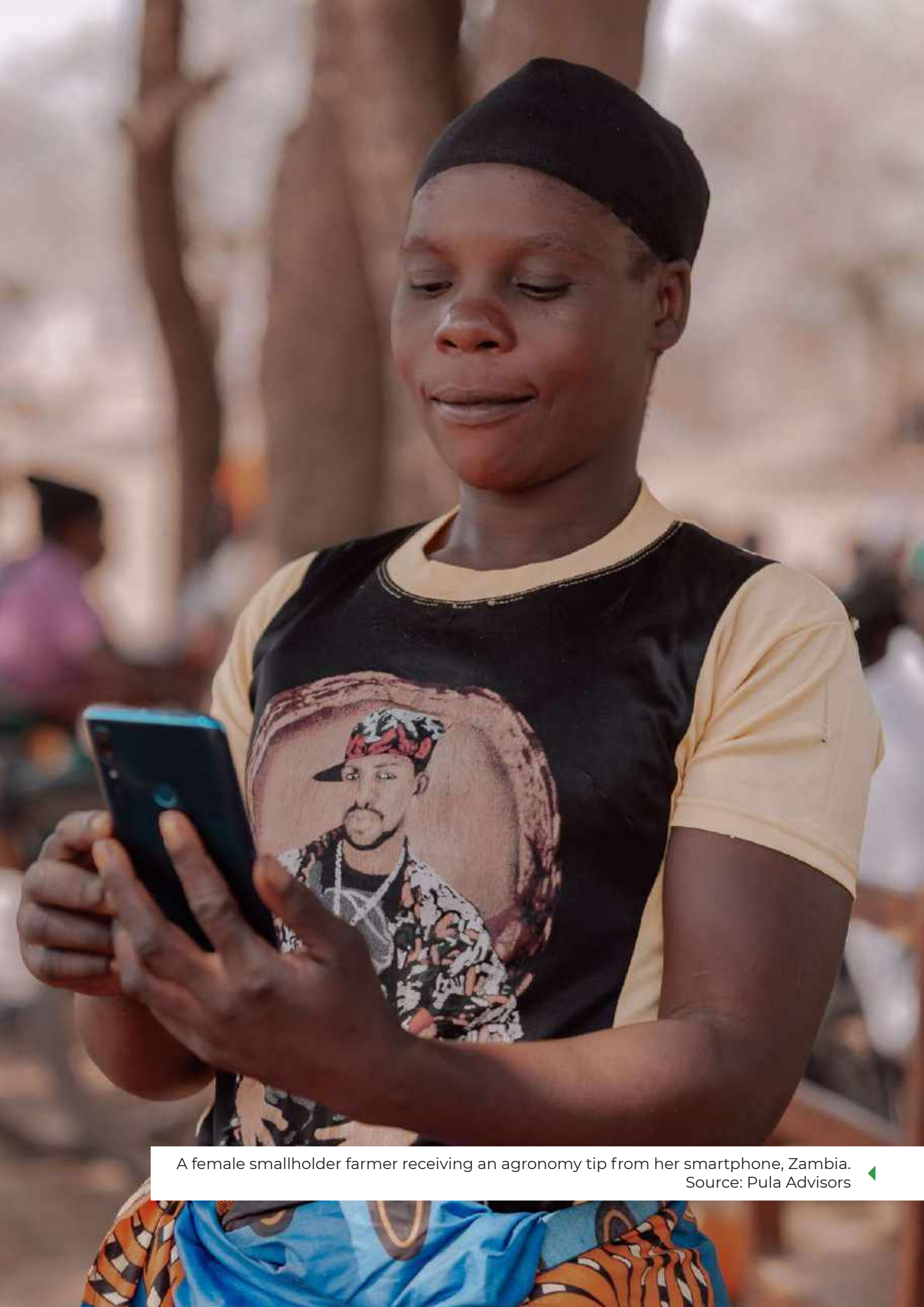
A female smallholder farmer receiving an agronomy tip from her smartphone, Zambia.
Source: Pula Advisors

6. NEXT STEPS

The results of the project are being used by Pula to improve its product offering. For example, Pula has started using SMS, USSD[10] and radio in Zambia (Figure 14) to promote and explain insurance to farmers. This approach helps to improve awareness and generate demand for insurance. Digital approaches are being supplemented with in-person training in areas where farmers have low levels of digital literacy. In Nigeria, SMS blasts are being developed to use in a similar way with some female smallholders.

The HCD research has impacted Pula's core products too. It has highlighted the need to consider the local context and build this into product design and development. For instance, many female farmers in Zambia were unable to relate to "area yield index insurance". This has since been renamed to "FISP insurance", named after the government-led Farmer Input Support Programme (FISP) that most farmers use and are familiar with.

Figure 14: Pula's existing and proposed complementary products

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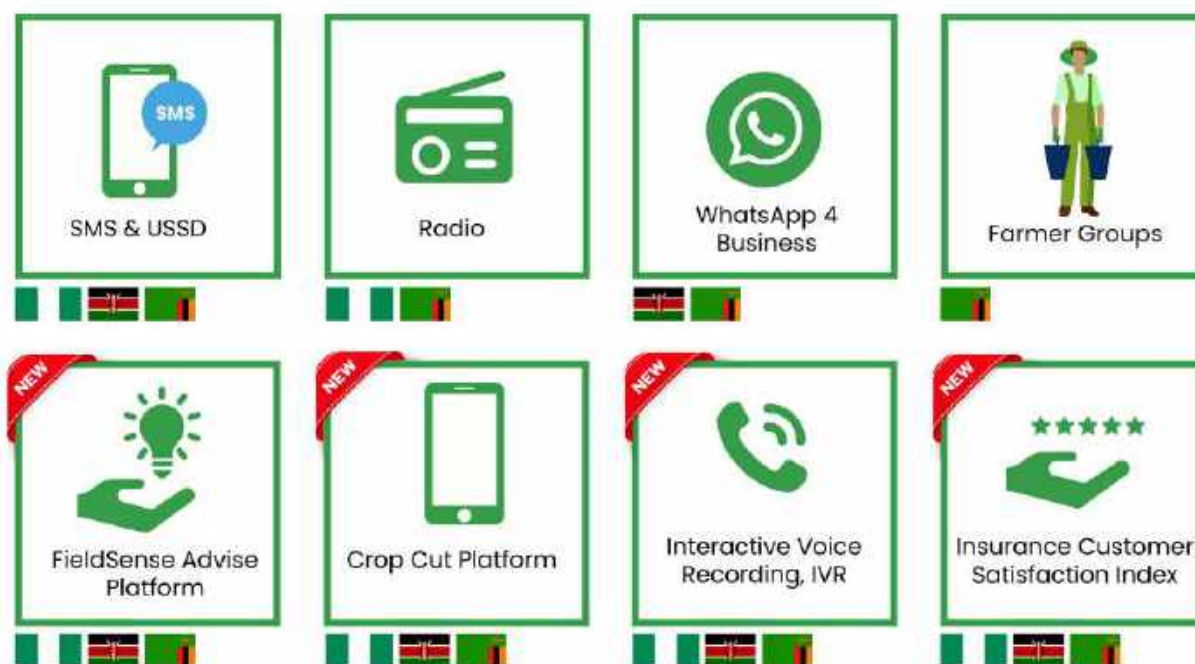
[10] USSD: USSD: Unstructured Supplementary Service Data, sometimes referred to as "quick codes" or "feature codes", is a communications protocol used by GSM cellular telephones to communicate with the mobile network operator's computers.

Summary of progress in applying the results of this study to product design

Product	Purpose	Status
FieldSense Advise	Pula's multi-channel platform that enables farmer communication to raise awareness. It is used to provide farmers with agronomic advisory on planting and best practices.	In Kenya, Pula has added IVR to inform female farmers on how to register for subsidised inputs. With 31,144 farmers reached, around half were female. Over 132,000 farmers were sent around 1.2 million text messages via SMS, resulting in a 90 percent opt-in rate for insurance. In Zambia, SMS, USSD and radio have been used to make farmers aware of insurance. IVR is being set-up through Viamo. In Nigeria, SMS is being used to promote insurance and educate farmers with certain clients, such as AFEX.
Mavuno	Bespoke software developed by Pula to manage data collection from crop-cutting exercises.	Questionnaires can now be edited through the platform. Video questions can be used, while questionnaires can be saved. Through the improvements made, around 76 percent of the women surveyed in Nigeria wanted insurance to cover losses resulting from natural disasters including flooding, drought, oil spills and bush fires.

Smallholder farmers harvesting and threshing rice in Kaduna state, Nigeria
Source: Pula Advisors

ADFI funding partners