

# 3-D CLIENT VALUE ASSESSMENT FOR ACRE RWANDA MAIZE & LIVESTOCK INSURANCE PRODUCTS

Findings & Recommendations brief for ACRE Rwanda

August 2020











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# 1.0 Introduction<sup>1</sup>

ACRE Africa started its operations in Rwanda in July 2012 under the **Kilimo Salama Project**. The feasibility study was conducted by Syngenta Foundation for Sustainable Agriculture (SFSA) with the support from Access to Finance Rwanda (AFR) and the Ministry of Agriculture and Animal Resources (MINAGRI). The goal of the feasibility study was to investigate the potential of developing crop and livestock insurance products in Rwanda. The Syngenta Foundation (SFSA) team conducting this study focussed on establishing the commercial viability of 10 agricultural value chains in the Country. Analysis was done on maize, wheat, sorghum, beans, Irish potatoes, coffee, tea, rice, cassava, and dairy livestock. The outcome of the study found out that smallholder farmers are exposed to various risks and recommended the introduction of innovative insurance products for these value chains to be delivered mainly through cooperatives and financial institutions.

Maize was ranked number one on insurance business viability scale followed by dairy cows. Based on these findings, Maize product was piloted in 2012 season A (October 2012-March 2013). The pilot was successful, on-boarding 20,000 farmers and with the scheme showing potential for growth in farmer numbers and products portfolio until 2015. There was growth in business between 2012 and 2016 but this milestone was hampered by basis risk. Smallholder farmers remained exposed to loss of crops with minimal or no compensation (payout) due to the prevalence of basis risk and the risk transfer through crop insurance for these farmers decreased in value for subsequent years, 2017-2019. Although Maize weather index product was technically a product that would suit the fragmented and scattered smallholder farming systems in Rwanda, the use of satellite rainfall data to compute the produce loss was beyond farmer's understanding.

2014 saw the introduction of Livestock insurance product for dairy farmers. This Product was trailed for 3 years under ACRE Africa pilot program. The amount of data generated, and the success accumulated over the cover period was used to sensitise and bring on board the GoR as a strategic partner. The involvement of the GoR played a vital role in the insurance program roll out through various policy directives that included waiver of premium taxation, enforcement of a mandatory insurance cover for every animal distributed under One Cow national program, a strong education and mobilisation strategy vis a vis the country wide network of Cooperatives, the introduction of 40% premium subsidy as well as high level Government advocacy and political support. Unlike Maize weather index parametric product, Livestock cover is a simple indemnity insurance product that showed potential for growth, the products desirable attributes laid a strong foundation for the National Livestock Insurance scheme under the Ministry of Agriculture Rwanda (MINAGRI). The opening up of Livestock insurance market by MINAGRI, through national insurance scheme had a big impact on ACRE's business strategy. This

resulted from the changing landscape on the insurance delivery channel working with the government through MINAGRI.

In order to reposition itself to the changing business environment and meet the needs of the stakeholders, ACRE Africa submitted two proposals to **Swiss capacity Building Fund (SCBF)** in 2019 seeking funding support for product upscale and financial education campaigns linked to product upscale initiatives. Product upscale aimed at facilitating agricultural market development by improving existing products based on assessment of current insurance schemes from the perspective of clients using 3-D client value assessment tool designed by the **ILO Impact Insurance Facility** and **Future Innovation Lab for Assets and Market Access (AMA Innovation Lab)** at UC Davis. On the other hand, the financial education proposal aimed at identifying behavioural aspects key to improving understanding of the technical product aspects in order to stimulate demand in the long term at small holder level. The financial education proposal also intended to enhance financial literacy for smallholder farmers and key stakeholders in the Agricultural value chain targeting 138,000 smallholder farmers, 170 officials from Micro-Finance Institutions (MFI) and cooperatives, 20 Agricultural input suppliers and 250 Government extension officers. This blended approach of utilising behaviour-based research with financial literacy linked to agriculture insurance offering aims at increasing capacity within the agricultural insurance value chain with a project goal of serving 3,960 by August 2021.

To achieve these goals and solve the challenge of current low business volumes, ACRE Rwanda contracted ClimaTech Risk Solutions as a consultant to conduct the 3-D Client value assessment.

<sup>1</sup> Basis risk describes misalignment between the actual experience and the insurance policy payout. This is where the farmer experiences the loss at farm level while the index product fails to pick out the same.

## About ClimaTech Risk Solutions and experts who supported in Implementation.

ClimaTech consulting is a climate risk-consulting firm leveraging technology to provide data driven risk management solutions for agricultural and climate risks. The Kenyan based firm has consulting operations in Africa, Asia and Latin America; designing, evaluating and implementing customized risk management solutions for smallholder farmers, to enable them to better understand and manage their risks. These solutions have enabled smallholder farmers to develop climate risk resilience, to be food secure and generate better incomes

ClimaTech constitutes qualified and certified trainers on 3-D Client assessment tool and has conducted similar work for Asuransi Usaha Tani Padi (AUTP) rice insurance program in Indonesia.

ClimaTech and Acre 3-D field mission was implemented with lead support from Enock Sing'oei. Enock is a former fellow from the ILO Impact insurance and has been involved in various field research on Agriculture and Climate insurance initiatives in Africa and Asia.

At implementation, Acre staff received a training on 3-D assessment. Acre staff were actively involved at field level and entire 3-D analysis process to final report production. Great appreciation Acre Staff:

- **Muthithi Kinyanjui** - Head of Business Development, partnership
- **Thomas Bazarusanga** - Country Manager, Rwanda.
- **Claude Rutaremara** - Account Associate, Acre Rwanda
- **Acre Actuarial Team** - (Reuben K Saina and Lawrence Kenduiywa)

## About the 3-D Tool

The 3-D tool provides a framework to conduct analysis for agriculture and climate insurance products with the aim of understanding the products' value proposition to smallholder farmers. The tool provides a multi-dimensional understanding of the value proposition for potential or existing clients.

The 3-D Client value assessment tool allows insurance providers to measure the value of their agricultural insurance products. Key components of the 3-D tool are: Design, Distribution and Delivery of products. There is a total of 14 Indicators:

Dimension	Indicator
Design	1. Index reliably predicts farmers' experience
	2. Covers appropriate activities
	3. Covers appropriate risks
	4. Enables productive investment decision making
	5. Minimizes gaps in coverage
Distribution	6. Covered farmers are adequately
	7. Staff and sales agents are not adequately trained
	8. Payment process minimizes liquidity constraints
	9. Product is inclusive
Delivery	10. Product delivers adequate coverage for money
	11. Benefits are delivered in a timely manner
	12. Procedure to deliver benefits is reliable and understood
	13. Provider is responsive and proactive about questions, problems and complaints
	14. Covered farmers receive evidence of coverage

Each component has specific Indicators used to score the performance of the product. The indicator score ranges from 0 to 2. (0= Poor, 1= average & 2= strong). This means:



Indicators receiving a "Poor" score	Indicators receiving a "Average" score	Indicators receiving a "Strong" score
<p>Important shortcomings have been identified</p> <p>Informations collected through the 3-D Analysis can be used to define recommendations and identify potential product improvements</p>	<p>The product meets the minimum requirements set by the tool, but gaps have been highlighted by the analysis.</p> <p>The data obtained through the 3-D Analysis can be used to address these gaps.</p>	<p>The product fully meets the standards set by the 3-D Tool.</p> <p>Relevant insight on how to increase client value may still have been uncovered by the 3-D analysis</p>

## Methodology

3-D Assessment of ACRE Rwanda aims at analysing the value that Maize and Livestock agriculture insurance products and schemes provides to clients and makes recommendations to enhance value to both demand and supply side of the insurance market niche.

To evaluate how a product performs against the 14 indicators of client value, the 3-D tool provides specific data requirement criteria and thresholds. A 3-D Analysis involves obtaining the relevant information from multiple sources, conducting both qualitative and quantitative data analysis, and obtaining a scoring for each indicator.

ACRE Rwanda shared the historical data for insured farmers (2013-2018) for Maize Index Insurance product) and (2015-2019 for the Livestock product). The consultant analysed the data with the aim of understanding historical performance of the scheme by creating KPI's (growth ratio, causes of losses, Loss ratio, retention ratio, portfolio performance per channel and insurer, etc) for analysis – See annex 1- ACRE Rwanda client portfolio analysis. The data analysis framework employed for this purpose was descriptive statistical analysis. This framework provides a description of data; its contents and what it shows, it helps to simplify large amounts of data in a sensible way. Descriptive statistics therefore enables presentation of large data simply, meaningfully and with ease of interpretation.

The consultant and ACRE Africa team conducted a field mission on the 19th -25th January 2020 in Rwanda regions including: Kigali, Kamonyi, Muhanga, Rwamagana and Busegera districts. On 20th January 2020, the consultant trained 3 ACRE Africa staff and 3 independent local research assistants. Focus Group

Discussions (FGD's) with 14 groups and at least 109 farmers were conducted. Three districts (Kamonyi, Muhanga and Rwamagana) focused on Maize insurance assessment, Busegera district focused on livestock and Kigali has a mix of the two. There was more focus on Maize because over 90% of ACRE Rwanda clients are Maize farmers and this is a product that they have had a rough experience with as far as basis risk issues are concerned since 2013.

In-depth interviews were conducted on distribution channels mainly Agricultural cooperative officials (Ubumwe, IABM and Kohunya agricultural cooperatives), livestock veterinary distribution outlets, district farmers and officials under the One Cow program and Dairy cooperative officials (Ruhuha Livestock farmers cooperative). Four independent veterinary doctors in Busegera district also participated in in-depth interviews. Interviews were conducted with various input suppliers, government institutions and local experts involved in the implementation of the agricultural Insurance scheme with ACRE Africa and the National government, MINAGRI, ACRE Rwanda staff, Radiant Insurance Company, Prime Insurance Company, Sonarwa Insurance Company and UAP Insurance Company.



## 2.0 Findings & Recommendation

The Rwanda agricultural insurance market is still at nascent stage. However, with current interventions by the National government there is an increasing awareness and a promising future for growth of the industry, as such, ACRE Africa should aim to align its strategy to fit the government program. Generally, ACRE Rwanda scheme has a huge potential and role in bringing value to clients. ACRE Africa needs to redefine its identity in the market by playing an active role in the government run initiative by blending it with their commercial ventures.

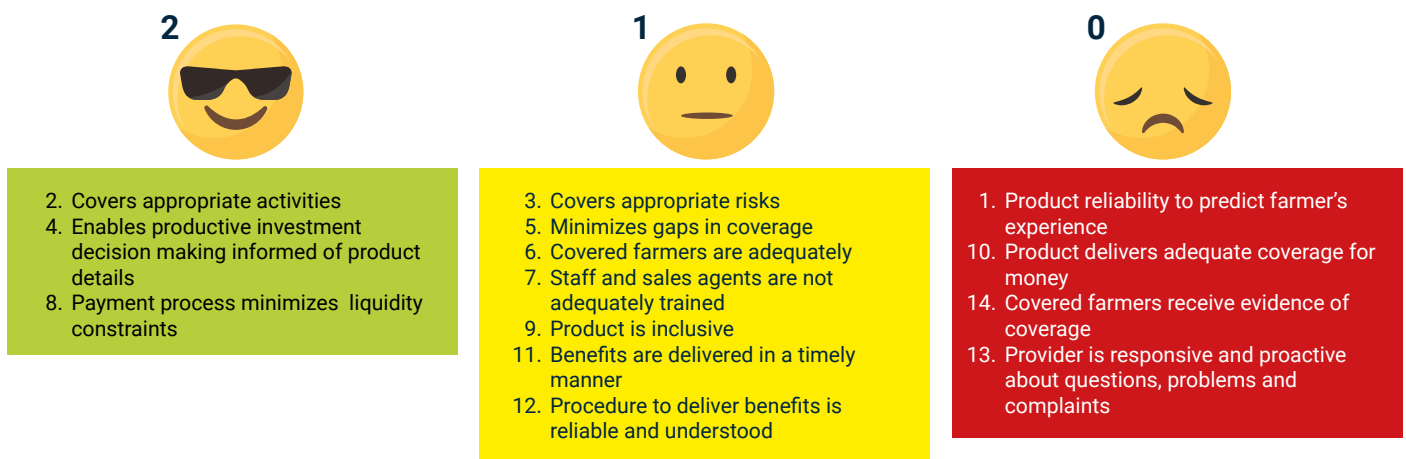
The numbers correspond to each indicator assessed and the figure provides an overview of which indicators performed well, which ones performed satisfactorily, and which ones were underperforming.

### Scores- Overview of 3-D Assessment Findings per Indicator Assessed

#### Maize Insurance Score:

Results from the overall quantitative and qualitative analysis shows that 3 indicators performed well for crop insurance, most indicators performed averagely (8 out of 14) and 4 reported poor performance.

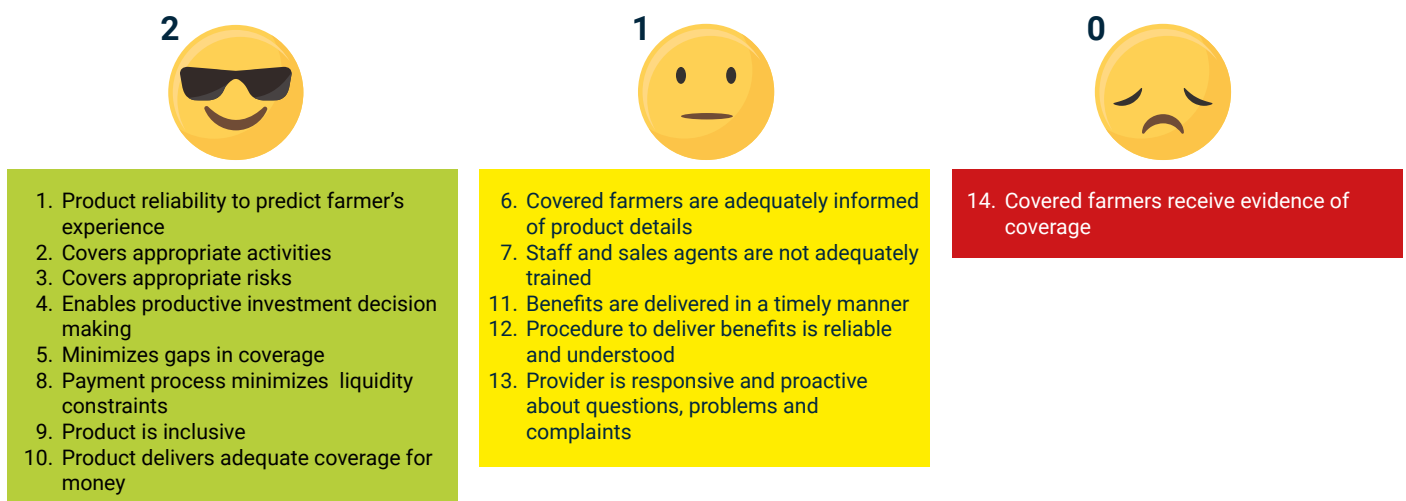
**Figure 1 provides a summary of crops findings per indicator:**



#### Livestock Insurance Score:

Unlike crop, there a big difference on indicators performance. Livestock scheme is performing better than crop with many indicators scoring high. Most indicators performed well (8 out of 14), 5 reported medium performance and only 1 reported poor performance.

**Figure 2: provides a summary of livestock findings per indicator:**



## 2.1 Design

1. **Index** reliability predicts farmer's experience
2. Covers appropriate **activities**
3. Covers appropriate **risks**
4. Enables product **investment** decision-making
5. Minimizes **gaps in coverage**

### 01 Product Reliability to predict farmer's experience

#### Maize Insurance

**Findings** - There was a mixed experience of farmers on Maize insurance. A bigger percentage of Maize farmers purchased insurance in the past 2 years, with most farmers failing to renew their covers because of high incidences of basis risk. At its inception, ACRE Africa started with Weather Index Insurance (WII) product due to its potential to cover large areas using satellite and weather station data and provide a cheaper alternative to the traditional indemnity covers. ACRE Africa later introduced the Area Yield Index Insurance (AYII) product as a strategy to resolve the issues of basis risk that are inherent in WII products. WII had the highest basis risk and on the supply side, the claims ratio were higher. The analysis shows that over the past five years, the pure weather index product received large premiums and paid higher claims value and thus a high claims ratio of 68% compared to the AYII product that has the lowest claim ratio at 17% (Refer to Annex 1 for further analysis). The two products (Index and hybrid) have had limitations in design in matching the actual crop losses resulting in a negative market experience on agricultural index insurance products. This is caused potentially by the micro-climates arising from varying land topography and other natural bodies such as lakes and forests. Other limitations include weak data collection and management infrastructure required to inform accuracy in product design.

#### ACRE Africa's Strategies in Reducing Basis Risk

ACRE Africa has since been working on a number of methodologies to combat this and has implemented various strategies to minimize exposure to the different kinds of basis risk, though this is a key challenge area where continuous improvement is critical, including:

1. Selecting data sources and product structures that show a strong correlation with the peril to be covered (Product basis risk). This is done through accessing multiple sources and 'ground truthing' them against the most accurate data source, however one that may not have the time series or availability to run the product from.
2. Continuous improvement of the indices based on feedback

from clients and observations (Product basis risk). All contracts have monthly client reviews during the cover period during which the Actuarial team sends an update on how the policy is performing based on the index data and if any aspects of the contract have triggered. Clients provide feedback if they have any concerns or have noticed losses that are not reflected in the current contract review. All feedback is analysed, and indexes or data sources may be slightly adjusted based on it.

3. Allowing the weather-based products to have a dynamic start, so that the first day of the cover is aligned with the start of the season (Temporal basis risk). This enables the rest of the growing stages to match up with the actual crop in the field. This has become increasingly important as erratic rainfall may shift the onset of the growing season by a month or more.
4. Allowing a margin in the number of days covered when setting up the index, e.g. by adding an extra 5-7 days to the average time taken in a particular phase (Temporal basis risk).
5. Limiting the maximum distance between a farm and the weather station to be used (Spatial basis risk). Given the effect of topography on weather patterns and rainfall, limiting the distance from farmer to the weather data collection point helps to reduce the risk that the farmer will experience significant differences throughout the season that would impact the yield and payout.
6. Working with high resolution satellites, where possible (Spatial basis risk). Given the availability of ground automated station data throughout East Africa, satellite-based indexes are a necessary alternative for monitoring contracts, and the quality/correlation of the data has improved greatly in the past 10 years. ACRE Africa proactively analyses new satellite data sources as they become available, checking them against current sources and indexes to determine which most accurately capture the on-farm experience.



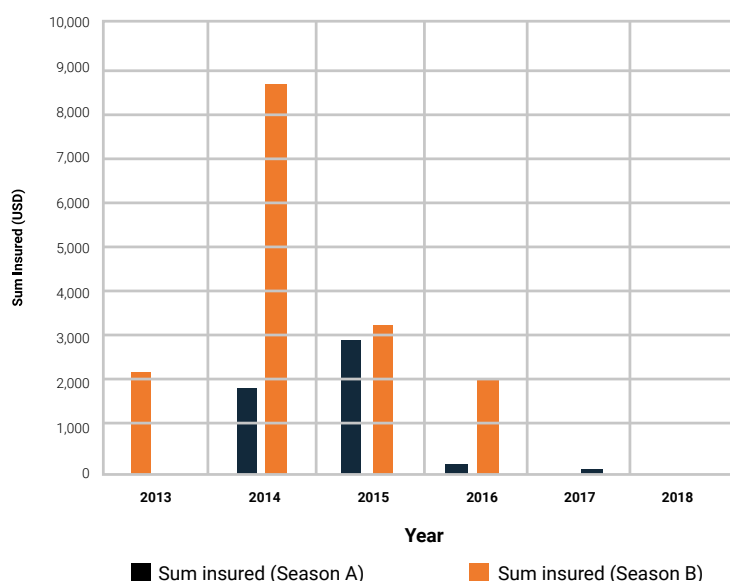
## Basis risk

Basis risk is the difference between the loss experienced by the farmer and the payout triggered by the index insurance product. Its effects can be negative to the farmer (i.e. if it leads to the farmer not receiving compensation when they have suffered a loss due to the occurrence of the insured peril), or negative to the insurer (i.e. if it leads to farmers receiving compensation when no loss has occurred).

Several types of basis risk have so far been identified in index insurance:

- 1. Product basis risk** – This occurs where there is no clear-cut relationship between losses and the indexed weather peril. It can be minimized by properly identifying the peril that has the highest impact on the expected yield in a given area. This is normally done by comparing deficits in the peril of interest, e.g. rainfall, with the historical production experience of the area to be insured.
- 2. Temporal basis risk** – Occurs due to inter-annual variations in the length of the crop phases, so that they are not always aligned with the phases set out in the insurance product. It can be minimized by allowing the index-based product to have a dynamic start, so that the first day of cover is aligned with the start of the season. It can also be minimized by allowing a margin in the number of days covered when setting up the index, e.g. by adding an extra 5 days to the average time taken in a particular phase.
- 3. Spatial basis risk** – Occurs due to local variations in the peril occurrence, e.g. the rainfall surrounding a weather station. This can be minimized by identifying the potential for microclimates in a given area and working to find data sources that best allow for this to be taken into account. It can also be minimized by limiting the maximum distance between a farm and the weather station to be used for insurance and by working with high resolution satellites, where possible.

### Trend Analysis: Sum insured per person historically



Due to the issues of basis risk and the limited resources required to support new products from insurers/ local underwriters. There was an issue of market instability as well i.e most Cooperatives collapsed, a number of partners such as micro finance institutions experienced funding /budgetary challenges and left the agriculture market or changed their business models. All these lead to a huge drop in smallholder farmers and subsequent value insured over the years. The analysis shows a decreasing trend in value of insured investments over the years. Season A had the highest insured value in 2014 (over USD 8,000) decreasing to slightly over USD 3,000 in 2015. It was lowest in 2017 having less than

USD 1,000. On the other hand, Season B had an increasing trend from 2013-2015 dropping to less than USD 1,000 in 2016. Since 2016, the Government of Rwanda approached ACRE to work out the NAIS program which was due to start by 2017A season. Due to various reasons, the program was postponed to 2020A season. This initiative saw ACRE Rwanda farmers drop in number as most clients kept waiting for the NAIS program which would benefit them with a partial premium subsidy offered by the government.

### Recommendation

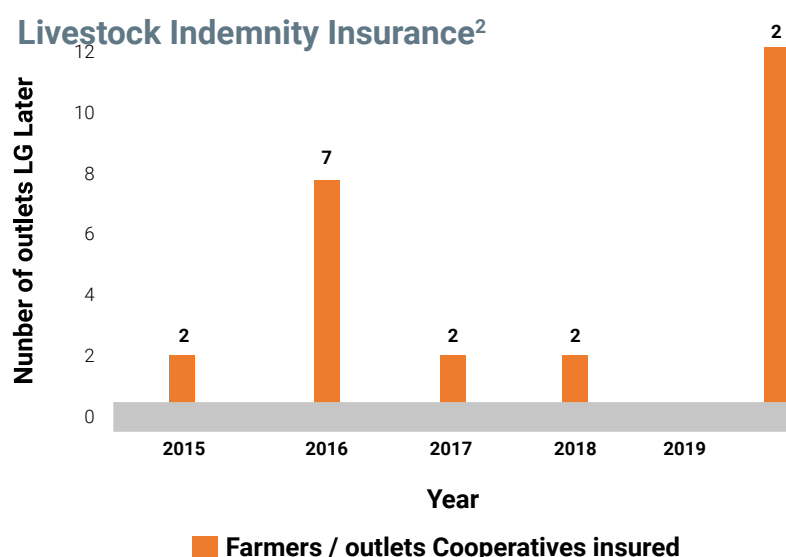
The consultant proposes for ACRE Rwanda to invest in product refinement to design appropriately tailored crop insurance products (particularly for Maize) to the needs and preferences of smallholder farmers and agricultural cooperatives in the country.

Acre Rwanda should adopt a structured Human Centered designed model for frequent collection of customer insights to inform product building and refinement.

Another recommendation is to increase the technical capacity for ACRE Rwanda

operations. Hiring a local actuarial officer who will work closely with the local National Scheme (MINAGRI) agronomist in mapping risk at sector or cell level and conduct frequent on-field product refinement campaigns every season. The main role for the actuarial expert will be to apply their expertise to capture relevant data from the NAIS (National agriculture insurance scheme) that are key to the product refinement and customization of the agroclimatic and ecological diversity. ACRE Africa is a valuable partner as a technical expert to support in the design, technical adaptation, monitoring and managing of the insurance products developed and required for the NAIS programme to operate both efficiently and effectively due to the size and amount of data that will be generated. With this resource ACRE Rwanda will have a better bargaining hand in applying for the Technical Assistance (TA) role at National Agricultural Insurance Scheme (NAIS). The TA role is being played by external consultants such as KMD for AYI and MAMDA Morocco for Hybrid Maize Insurance.

include outlet retail model design by ACRE Rwanda to use veterinary doctors as independent sales agents. Alternative outlet distribution channel customers liked the product, but ACRE Africa could not scaleup the program because of the costs associated with setting up and running a retail distribution model. On the one hand, the infrastructure under the one cow program is adequate but on the other, customers lack product knowledge and there is no customer retention beyond the one-year fully subsidized insurance premium. The first-year cover 100% subsidised premium policy under the One cow delivery channel is still being enforced and needs time to become fully integrated into community norms before it can be considered fully streamlined. The next stage is to set up strategies that will allow to extend the insurance policy beyond one-year cover in order to give the farmers sufficient time to have earned from the animal and experienced its value at household level as well as received the requisite training on the importance of insuring their animals. Given that most of the beneficiaries of the One Cow programme are the poorest of the poor and often have not had the experience of owning and managing a dairy animal, two years would be a more feasible timeframe for learning sufficiently to generate demand for essential animal care.



**Findings** - Findings Since its introduction in 2015, Livestock Insurance has had an upward trend in business growth with the onboarding of 12 clients / aggregators cumulatively and insuring over 6,000 animals. Despite the slow growth rate, 2019 client numbers grew significantly compared to the previous years. This can be attributed to market stimulation by ongoing government interventions of the livestock insurance product. The One Cow program, an initiative of the government, has contributed to over 80% of ACRE Rwanda's current client base. 20% are customers from alternative distribution channels which

It was difficult to measure farmer experience because the policy holder is the district since the entire project is undertaken by government officials from the sourcing of the animal suppliers to identifying the category 1 farmers eligible for the free animal at village level. In most cases, the survey found that farmers are not even aware that they are insured and those with little knowledge about insurance are not sure of the process to follow in case of claims.

## Recommendation

ACRE Africa should undertake high level negotiation with the Government for a binding contractual agreement where ACRE Rwanda takes on the role of technical assistance provider for product monitoring, data recording and computation, product refinement and claims management on behalf of Insurance Companies. Further, ACRE Africa and MINAGRI should build a system of certified registered insurance agents at sector level to help with the coordination of claims activities.



Secondly, ACRE Africa should leverage on the existing “One Cow” infrastructure and client base by adapting the Kenya piloted agent network program dubbed ‘the Village Champion Model’. With this, the champion would serve as the agent in every sector and their role would be the high touch distribution point responsible for financial education and customer onboarding when the policy expires as well as the data collection point for all issues that arise that are related to the success of the cover from season start to end. Using this approach will open the opportunity to scale-up at a higher rate to reach the intended target of 350,000 families receiving cows. The program has distributed over 279,000 cows as at end of 2019 and most cows have calved down to more cows. There is, however, no structured system to keep the records. While looking at scale of the “one cow” initiative, it is clear that there is a strong business opportunity for ACRE though it requires some strong political negotiations. ACRE are now at this stage with more than 25,000 animals insured by various insurers and using different cover products with more animals being registered on a daily basis. If ACRE can propose to reorganize the sector, identify some gaps in the supply / demand with a thorough review of the program and data recording and management while at the same time proposing other programs such as the review of the cover/product and cover renewal terms.

## 02

### Cover appropriate activities

Indicator 2 assess whether the crop insured is an asset to the smallholder farmers by looking at contribution to household income and investment required verses other smallholder activities.

#### Maize Insurance

**Findings** - In recent years, Rwanda has demonstrated huge potential in Maize production. The country has increased its maize harvest by 213% from 0.8 tons per hectare to 2.5 tons (KT press 2017). From FGD's with 13 maize producing groups, most farmers mentioned that maize contributes between 70-80% of their household income. Most farmers joined agricultural cooperatives because maize production is a profitable business and farmers are getting value from them by accessing loans for inputs and aggregation of their Maize produce for sale to the Rwanda Agricultural Board (RAB) at a fair price. Progressive farmers linked to cooperatives sell their produce to RAB. The majority of farmers sell their produce to various off takers – mainly grain millers for domestic consumption at a relatively moderate price 200-250 RWF/KG) as compared to seed multipliers who earn about 1200 RWF/KG.

The profit margin in a good season enables the farmers to pay for their children schools fees, invest part of the money into next season inputs and purchase food for their families. In the case of a bad year and farmers fail to harvest due to losses caused by risks such as climate and pests & diseases,, these farmers are subjected to heavy debt and often have to sell other assets such as cows, goats, poultry or sheep in order to meet their household needs.

NAIS has listed maize as a priority crop in Rwanda and maize farmers are eligible for the government subsidy on the crop insurance premium value. The value insured is bundled with the loan amount and loan amount does not cover 100% of

farmer cost of production. Under the NAIS program, the estimated sum insured (cost of production) per household has been valued at RWF 362,750/Ha and yet the farmers’ actual cost of production is over RFW 500,000/Ha. There is an opportunity to increase the product coverage to cover the farmer’s full cost of investment for both ACRE Africa and the NAIS products.

#### Case of Ubumwe farmers’ cooperative

They harvest (Ha) in a good season close to **5.7 tonnes** per hectare and sell a kilo at **230 RWF (\$ 0.25)**.

Making a total of **RWF 1,311,000 (\$ 1,380)/Ha**.

The cost of production ranges from **RWF 130-155/kg**.

The approximate margin is **100 RWF/KG**, equivalent to a profit of approximately **RWF 570,000 (\$ 600)/Ha**

## Recommendation

Develop categories of insurance covers to create flexibility for smallholder farmers and agriculture cooperatives based on their willingness and ability to pay in order to comprehensively cover their investments. The assumptions here include:

1. Provide a product whose sum insured is the loan amount bundled with Insurance and distributed for access to smallholder farmers through the cooperatives.
2. Provide a product based on total cost of production with the premium component financed through options offered by the cooperatives.
3. Provide coverage based on expected produce to cover farmers expected Margin. This kind of product is on high demand both from the farmers and government and would reflect the true value of insured capital, but the lack of consistent data has been a setback. Such challenge offers an opportunity for further research and innovation. Piloting the commoditised crop insurance product that is currently under distribution in Kenya would help to establish the demand and level of interest in that type of deployment.

## Livestock Indemnity Insurance

**Findings** - The Girinka program known as the **One Cow Program** started in 2006. The One Cow program aims to reduce extreme poverty in rural areas of Rwanda by providing each poor family with a cow. The available evidence suggests that this program has been effective in increasing household income through the sale of milk and increase in crops yields from the use of animal manure. Livestock is the main economic activity and the second main source of income for farmers in the Eastern region. The insurance coverage value is the value of the animal ranging from RFW 350,000 (\$ 370) - 600,000 (\$650). Animals are acquired under an open procurement process and various animal experts bid. A one-year insurance cover is a component of the tender application. The winner of the tender quantifies the value of the animal that in turn constitutes the value or sum insured of the same animal. The animal is supplied to the farmer with an accompanying package that includes essential drugs and basic materials such as hand spray material as well as the first-year insurance cover.

The investment by farmers and the district is higher than the value of animal. The District, under the One Cow program, provides free animal care support for a period of one year. The rationale behind this policy is that the animals are given to extremely poor people to lift them above the poverty line. Further, to this is that these BoP households may not be able to maintain a cow in terms of medical care and initial follow up during acclimatization, therefore the government provides technical veterinary service support during the 1st year. Cross

bred dairy animals are given to the farmers when pregnant and expected to calve within 6 months on average. The assumption of the policy is that farmers will get an additional income from the milk sales and enable them to cater for the basic maintenance needs of the animals' management and care including treatment, feeding, and hygiene. This would take place in the first year of receiving the animal as they are also educated during this government assistance period.

## Recommendations

ACRE Rwanda should explore the opportunity of designing an innovative hybrid livestock insurance product that covers the complete farmer investment (Cow value plus the care package). This would be an asset protection cover that pays for the care package services in case of an incident (drought, diseases, and drugs/medication etc) to keep the animal alive as opposed to compensating when the animal dies (mortality).

A small-holder farmer's decision making on purchase of insurance is largely influenced by their loss experience. The more frequently and/or severely a farmer experiences loss, the higher the likelihood to consider insurance as a risk mitigating tool. The converse is also true where farmers with low loss experience have been seen to have low or no priority for insurance. As such, this poses a risk of selective insurance uptake with high risk areas experiencing high insurance uptake and low risk areas experiencing low insurance uptake thus increasing the claims ratio experience. A high claims ratio makes insurance companies to increase cover exclusions and tighten compensation conditions consequently making the product unattractive to the end user. Bundling insurance with other services and products has proven to be more attractive to the farmers as compared to providing insurance as a stand-alone solution. As such, packaging the insurance product with other fast-moving products such as heifers and dairy credit has previously been observed to improve uptake.



Through the integrated risk management approach, ACRE Africa should repackage their mortality cover that is currently under pilot in Kenya. It is designed to include a medical insurance component that ensures that small-holder farmers receive compensations on veterinary charges in the case of a clinical incidence. The bundled products are subsequently offered to farmers registered onto the MyFugo platform where they will also have access to quality breeds, good animal nutrition, and reliable diseases management administered by reputable veterinary service provider. This solution would need to be adapted and piloted in Rwanda before adopting it at scale.

### 03

#### Cover appropriate risk

This indicator aims to assess whether the risk(s) covered is/are adequate, i.e. whether it brings value to the client. The evaluation relies on whether farmers perceive the risk as important.

#### Maize Insurance

**Findings** - ACRE Rwanda crop insurance product has gone through a series of multiple evolution and re-design since their first ever product pilot in 2012. The goal of this seasonal change is aimed at adjusting the parameters to match the historical loss experience. Based on the survey results, the major risks are drought, hail, floods, and pests & diseases. Initial ACRE Rwanda Maize Index insurance product covered the drought component, which was not the only main risk. Later, ACRE Africa introduced AYII and Hybrid (WII+AYII) products targeting improvement of its product offering to smallholder farmers. With the introduction of multiple products over the years, farmers are still experiencing losses and not receiving pay-outs. It has been difficult to set parameters that match the actual loss experience.

#### Recommendation

1. ACRE Africa should drive the multi-stakeholder campaign to create a road map of product design and reviews every season. This can be achieved through a strong co-opetition partnership under the NAIS program where ACRE Africa will leverage on the NAIS infrastructure and NAIS would benefit from ACRE Africa's historical experience and expertise.
2. Under this partnership, ACRE Africa should take the specialised local Technical Assistance role under NAIS for all claim assessments, adjustments, and end to end claims management. This requires investment in open claims management tool that facilitate claims processes in timely and accurate manner with total transparency to farmers and stakeholders.

#### Livestock Insurance

**Findings** - Livestock covers accidents and disease incidences. If insured animals die, district or sector veterinary doctors conduct a post-mortem to determine the cause of death. The cover pays up to 100% of the value insured. The existing exclusions are incidences that can be avoided/managed by the farmer without substantial financial loss.

#### Recommendation

ACRE Africa should investigate enhancing the livestock products by leveraging on the veterinary network to design an animal care calendar linked to the animal health platform. NAIS should consider using modern tracking chips to help farmers track the animals in case they are stolen and linking health data collected by these tracking chips to the animal health tracking platform - MyFugo.



## 04

### Enables productive Investment decision making

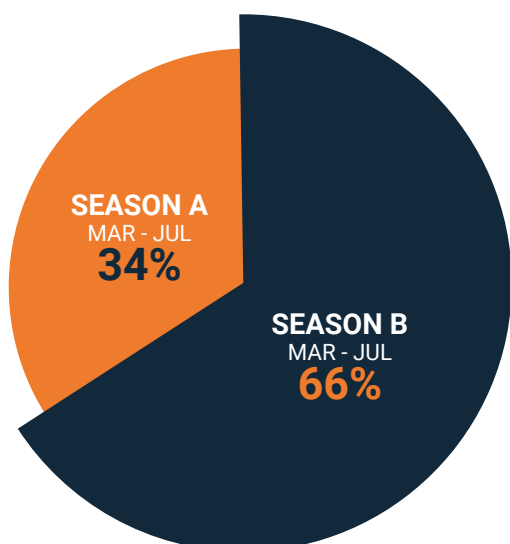
It aims to assess whether the insurance provides farmers with the confidence and peace of mind necessary to apply for loans and make investment decisions. Two main criteria are used to evaluate this: The product can be purchased before farmers make investment decisions and the product provides benefits that are enough to cover for a large portion of anticipated investment needs.

**Findings** - Season A is the main season in Rwanda and contributes close to 70% of household annual crops. Maize is the main crop for season A. Season B receives less rain for a shorter period compared to season A and rainfall distribution during this season is erratic. Farmers have less confidence with this season compared to season A and they use this season mainly to plant rotational crops such as beans, groundnuts and vegetables.

From the analysis of the ACRE Rwanda client portfolio, Season A covers a higher farm investment value (sum insured) of up to 66% while season B covers 34%. This data is also reflective of the contribution of the season to household income.

Farmers depend on loans from the cooperatives to raise capital for their crop production. At the beginning of every season, farmers apply for the loans and partly use the income from the sale of produce from the previous season to finance farming activities.

#### Distribution of Agricultural Investment insured per Season



In-depth interviews with cooperatives officials reveal that there was a strong indication that Insurance creates a strong going concern for cooperative agricultural insurance business models. Cooperative loans bundled with insurance guarantee liquidity

within the cooperatives and reduce the need for the cooperative to readjust loan terms. With Insurance, farmers can access more loans and in seasons like 2014 where Ubumwe cooperative in Kamonyi district suffered a loss, farmers benefited from the insurance payout and loan repayment was smooth. Comparatively, the reputation of the cooperative was at risk in 2015 when the product failed to pay out since farmers were insured against drought and the cause of loss was hail and floods. The Hybrid cover is designed to bridge this gap. Because WII cannot capture loss due



*In 2017 I didn't harvest because of floods; the entire crop was carried away and I was forced to sell my heifer which was ready to be served in order to pay back the loan and borrow new loan for 2018 season. Luckily 2018 was good year and I managed to harvest, paid back the loan and purchase another heifer. 15 months later the heifer calved, and I am now selling the milk. 2017 floods resulted to one-year loss and I had to wait for more months to get the milk from the heifer."*

**NITEMUGENI MZRIE GRACE,**  
Advisor committee member and  
farmer at Ubumwe buigamije  
Itarambe

to flooding, hail, pests. The cooperative and its farmers took the decision to ease off on insurance and since then, have not renewed their cover. As a result, most of the member farmers lost up to 50% of their investments in Season B of 2017 and season A of 2018 from climate related losses and had no insurance to



cushion them from the losses. In such situations, farmers use different strategies to manage their household needs:

## Recommendation

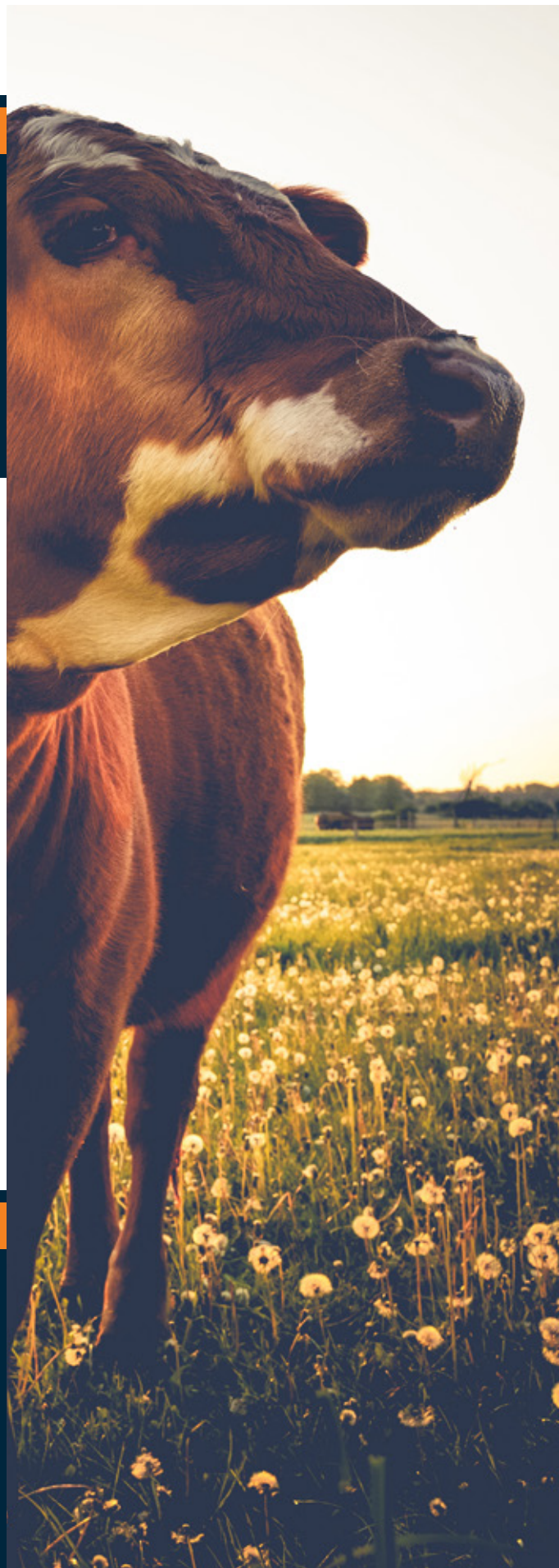
Smallholder farmers in Rwanda trust the cooperatives they are registered to and as such, commercial banks and MFI's distribute most of their financial products to farmers through these agricultural cooperatives. These cooperatives are responsible for the development agendas at community level, with that background, ACRE Rwanda should design a partnership framework that provides the cooperative officials the opportunity to be part of the product design process and support the formal distribution structures with the right incentives to ensure their success.

## Livestock Insurance

Key findings- MINAGRI has invested heavily in the livestock sector development through the One Cow program. At the cell level, the community leaders and committees identify the vulnerable persons based on the population income categorization developed by the government. The one cow program is only dedicated to the persons in category 1 and 2 (These are wealth based categories where category one is considered to be the bottom of the pyramid (BoP) ( no shelter, no income) and is assisted by the government for the day to day living, while category two is more or less poor but can have an address (shelter in poor conditions, eat once per day). Both of these categories receive Government assistance to ensure at least their basic needs are met. This list is considered at the district level for the budgeting process and thereafter, the availability of funds and the farmers level of preparedness (basic husbandry trainings, ability to grow fodder, ability to build an animal shed would determine the number of farmer beneficiaries to receive the one cow. Recently, district investments are insured but limited to a cover period running for one year. The survey found that knowledge about insurance is limited across the entire value chain.

## Recommendation

1. The sales pitch and training materials need to be adapted to deliver a narrative that focuses on the value of insurance across the livestock value chain. To do this effectively, ACRE Rwanda should map out the entire one cow program end to end and identify all potential points of customer education.
2. ACRE Rwanda should take lead to lobby for a two year livestock premium subsidy once the policy expires under MINAGRI in order to adequately support the farmers under the One Cow programme.



## 05

### Minimizes gaps in coverage

It aims to assess whether the product is structured in such a way that gaps in coverage are minimized. It looks at period of coverage to make sure farmers are covered from germination to harvest phases and that farmers are informed before expiration and given an opportunity to renew.

### Maize Insurance

**Findings** - The maize Insurance product covers all the key crop growth stages from germination, vegetation, flowering to pre-harvest. The WII and AYII solutions provide coverage for all the four key crop stages. Specific parameters under WII are defined on each phase and the AYII guideline is dependent on yield data collected at district level. The Hybrid solution is a combination of Multi-Peril Crop Insurance (MPCI) to capture localized perils not captured by WII such as hail, storms, frost, pests and diseases. The two sets of data layering on each other to fill the gaps present in the other to provide a continuous risk check.

In case of a loss, all claims are payable as per the products guideline and policy documents. Performance of this indicator is measured based on the policy renewal rate. Client retention is often a good indicator of client satisfaction. ACRE Africa products seem to have gained some traction with farmers from 2014 to 2016 with the introduction of the Hybrid product version (WII + MPCI) but the graph took a dip in the last two years of 2017 and 2018 due to product failure to pick up on losses where they occurred. Another indicator of this performance is the hybrid product sum insured value which was highest in 2014 at USD 4,317 decreasing in 2015 to USD 1,659. Pure WII product has had a larger proportion of investment in 2014 but suffered a significant drop to USD 36 in the subsequent years to 2018 (For further analysis see Annex 1- product uptake vs coverage. There is a drastic drop rate on the client portfolio after 2016. During this period, ACRE Rwanda's major client One Acre Fund dropped from the scheme and this had a massive impact on the business portfolio.

### Recommendation

The NAIS program has positively disrupted the Insurance market development in Rwanda through market development and ACRE Rwanda should position itself and align its strategy with the government initiatives around this scheme. There is a shock wave shaking markets in the early stages of the NAIS as all clients want to be part of the scheme to benefit from the subsidy. Signing up clients outside the NAIS would mean that clients will pay a non-subsidized full premium. ACRE needs to be part of this market and its historical experience will help the market to grow and stabilize leading to greater opportunities.

### Livestock Insurance

**Key findings** - The Livestock Insurance product is a comprehensive product that covers key incidences that can result in the loss of animals. It is evident that the product is well designed and all parameters that can cause a loss are part of the product coverage. Client traction indicates an upward growth rate with a slight drop in 2019 due to the intervention of the government in regulating the market. Three insurance Companies that are taking part in the NAIS have equal share of the country market i.e each Company operates in 10 Districts.

With the good product parameters there is a big gap on operationalization of the products with qualitative data indicating almost no renewal. There is no data at ACRE Rwanda capturing renewal, but data provided indicates a new set of clientele every season.

Innovative opportunities for the product are available to include loss of income and animal health insurance coverages. Interviewed farmers and veterinary doctors expressed interest on such a product. These are potential areas for future research and product value creation.

### Recommendation

ACRE can consider collaborative opportunities with MINAGRI on testing innovative insurance products under the one cow program that pays to keep the animal alive and provide farmers with cash benefit equivalent to loss of income

## 2.2 Distribution

6. Covered farmers are adequately **informed** of product details
7. Staff and agents are adequately trained, incentivized and supervised to inform clients and **sell responsibility**.
8. **Payment processes** minimize liquidity constraints
9. Product is **inclusive**

### 06

#### Covered farmers are adequately informed of product details

It aims to assess whether key information is communicated to farmers in such a way that farmers understand and are aware of the main elements of their coverage. These include at least crop covered, risk covered, and the way the product works. The evaluation relies mostly on interviews with covered farmers, and a comparison of their answers with knowledge of the product. Since the elements assessed are relatively basic, no additional documentation requirements should be necessary.

#### Maize Insurance

**Key findings** - From the survey, findings show that both insured and non-insured farmers expressed little to no knowledge of agric insurance. During the Kilimo Salama period in 2009 to 2012, farmers were trained by cooperative officials and critical questions regarding the index parameters were not clearly understood or retained by the farmers. Despite the little information provided to them on how the insurance index products are structured, farmers purchased the product anyway because of the trust they have in the cooperatives which strongly endorsed the product. Brochures were used to pass the information, but most of the marketing documents were in English and therefore only a few individuals at cooperative management level were able to read and interpret the content well. This was however not standard; training materials were not issued to farmers in some regions as in the case of IABM cooperative in Muhanga district.

With the NAIS program, the transfer of insurance information has improved, farmers are getting materials in the local language but critical questions regarding product parameters are still going unanswered. NAIS uses the same model of training as ACRE Africa by using cooperative officials to train farmers blended with awareness campaigns run by MINAGRI extension staff.

#### Recommendation

1. ACRE Rwanda should consider a financial education literacy-based program to train farmers on insurance and other related topic like access to finance and savings. Additional modules are an incentive to the cooperative to support the insurance initiative since their business model will be strengthened.
2. This can be achieved using ACRE Africa Kenya's Village Champion (VC) Model. Creating such a robust infrastructure of village level known will ensure sustainable and continuous transfer of knowledge to the smallholder farmers.

#### Village Champions' Model

The Village Champion Model is a peer to peer knowledge transfer channel model leveraging on local communities' trusted social structures. The network of rural change agents (called champions) were trained on good agricultural practices, financial literacy and insurance. To ensure motivation and retention, champions are compensated through a commission structure—they receive a small percentage of the insurance covers sold to farmers. The village champions' model project has proven effective with **over 664,557 farmers** trained in nine counties and **539 champions recruited and trained** (60% women). Not only are champions appreciating the role of being the transfer channel in their villages, they are also gaining the secondary benefits of recognition among their peers as the 'go-to' point for all things agriculture insurance and they like that they have direct contact with ACRE Africa for any clarifications.

The ACRE Africa project implementation team has often been put to task by the small holder producers in the various locations to explain why the project is not facilitating involvement of more agri-services providers to join in the training for a more integrated delivery. ACRE Africa has been in discussions with various stakeholders to explore how to link their field activities to the village champions as the last mile intervention for the integrated approach.



## Livestock Insurance

**Key findings** - The insurance process in the Livestock value chain is a long process and particularly under the One Cow program where there are multiple players in contact with farmers. Compared to crop insurance products, the level of product understanding is far much better but still not to the satisfaction of farmers. Most of the interviewed livestock keepers understood the product coverage details and premium payment process but they were not conversant with the claim process.

The stakeholders involved have not invested much in training and the delivery of product information is often in bits and in an unstructured manner. Suppliers, district and veterinary officers are responsible for delivering information to farmers both directly through in-person training and through the information brochures.

### Recommendation

ACRE Rwanda should create financial education campaigns and utilise the village champion agents model supported by the animal care call centre (Hello Cow) where dairy farmers can call and consult on animal issues.

Since the one cow program is under government and most agricultural insurance programs are driven by the Government, ACRE Africa should build a business case to the government for consideration of a joint set of Hello Cow call centre.

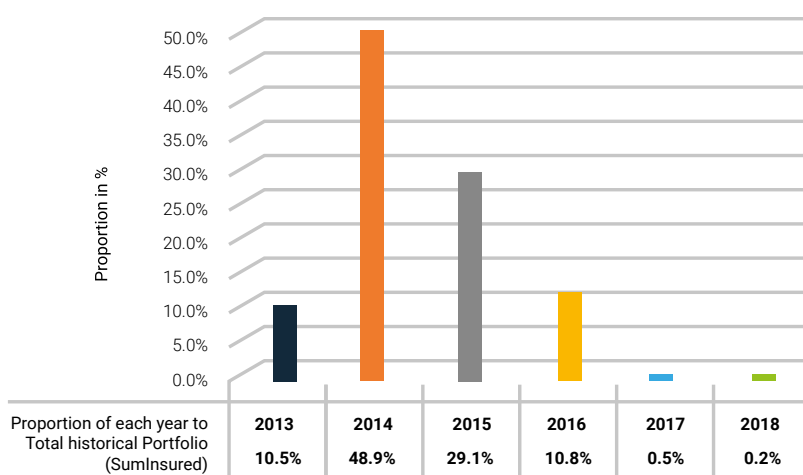
## 07

### Staff and agents are adequately trained, incentivized and supervised to inform clients and sell responsibly.

It assesses whether structures are in place to ensure that staff and agents sell products responsibly. This includes developing and implementing adequate training and oversight, but also ensuring that the incentives and performance evaluations are structured in a way that supports responsible and inclusive sales

**Key findings** - A major bottleneck identified during the Interview with maize farmers and the agricultural cooperatives was low understanding of insurance products. ACRE Africa actively trained Agricultural cooperatives and the Rwanda Agricultural Board (RAB) staff in 2014 and 2015. This was a seasonal training done twice in year, one training in season A and another training in Season B. It is also evident that such massive campaigns contributed to the good sales numbers.

#### Proportion of each year to Total historical Portfolio (SumInsured)



Both 2014 and 2015 numbers contribute to a total of 78% of cumulative investment insured. No major sales campaigns and training programs have been conducted since 2016 and that is reflected on the business portfolio. There was a drastic drop in business with no signs of recovery. This coincided with the beginning of the national scheme and attention was diverted toward the NAIS.

Most of the training approach to sales agents over the years has been based on an awareness type campaign instead of actual training with monitoring of these trainings. These awareness campaigns were run by cooperative officials with no incentives, they were doing it as part of their work during farmer registration for loan application or distribution of inputs. With some cooperatives they made the product compulsory and cooperative officials were trained but it is not evident what type of selection criteria was used to select the agents to be trained at cooperative level.

One of ACRE Africa's key staff left in 2016 and she was responsible for sales force management and direct relationship management with cooperatives. Her position was not replaced, and this contributed to some degree to low trust on insurance. Ubumwe cooperative president mentioned that "After 2016 there was no one to talk to, no one approached us for business again and there was no one to answer our basis risk issues".

### Recommendation

1. New skills, systems, structures and attitudes are required to offer agriculture insurance effectively and building sales force capacity early on to help minimize/overcome challenges in product understanding. Commercial sales manager with experience in scaling low income solution can be hired to set a well incentivized sales force system that will reinvent ACRE Africa's sales model and ii) Explore the partnerships with the government on the potential use of the village champion model on NAIS program.
2. ACRE Africa to consider simple training methodologies including training materials translated into the local languages with use of interactive games, videos and audio content.

### Recommendation

Setting up training, monitoring and evaluation structures from top down is required to ensure uniformity of training content and equal understanding of the product across the entire value chain.

Creation of auto renewal system linked to farmer and sales point/person for efficient and timely retention supervision. The same system can be advanced to monitor claims from reporting to claim settlement with actual calculation claims turnaround time on each claim process.

## Livestock Insurance

**Key findings** - The product is locally designed, and the understanding of ACRE Africa staff of the product features is high compared to weather index product for crop Insurance. Maize Index Insurance product is design by ACRE Africa Rwanda team but with heavy support from ACRE Africa Nairobi office. Livestock product structure is simple and is easy to explain. ACRE Africa trained stakeholders and different sales channel through a network of veterinary doctors. ACRE Africa created the veterinary agent network at sector level and key resource at ACRE Africa was assigned to coordinate the doctors. The set up demonstrated a good supervision of agents. Government Vets receive systematically training from ACRE on basic insurances principles and conduct to allow them to manage the policy as they have in their KPIs to follow up the animals under one cow for a full year. They can also perform loss notification and postmortem documentation used in the claim. The claim is officially filed by the District authorities. Delivery on targets as a result of motivation from earning a commission fee of 10% and for every post-mortem done by veterinary doctors, they earned 20000 RWF (21 USD)

The limitation was lack of structure and clear process on how agents train farmers. There is a one-off training at the beginning of sales period, followed by assumed follow up training after product purchase. Monitoring and evaluation of training at farmer level is missing and from interview with farmers they understood the product features but claim process and how to renew was not clear to them.

ACRE Africa had a good control of training approach until late 2018 when the main One Cow program was taken over by the Government. One Cow program has the highest client number compared to other distribution model largely because of the support it receives from the government.



## Payment process Minimizes liquidity constraints

It aims to assess whether payment processes are such that payments are made at a time when farmers can pay. To evaluate this, two main criteria are considered: Does the timing of payment correspond to a time when farmers are generally able to pay? And is the information communicated ahead of time, so that farmers can put money aside and have the resources needed when they need to pay for the insurance?

### Maize Crop Insurance

**Key findings** - There are two main seasons and premium payment are collected at the beginning of the season. Before the crop cycle start ACRE Africa, Rwanda agrees with distribution partners on behalf of the farmers. These partners' pre-finances premium and transfer the premium to insurers before planting date. Later the distribution partners will recover the advanced premium at the end of the season when farmers deliver their produce. With other partners like MFI's as in the case with opportunity Bank the premium is part of the loan product making it affordable for farmers. The premium amount does not seem to be a problem as farmers say it is quite affordable.

With NAIS program the government provide a subsidy of 40% and farmers pays 60% through the Agricultural cooperatives. Agricultural cooperative still considers pre-financing of the 60% on behalf of the farmers. From the insurer perspective 60% contribution by the farmer is always received on time but there is a challenge in receiving premium from the government because the payment procedures follow specific approval processes.

### Recommendation

There is a cost incurred by distribution channels on bundling their products with insurance or in facilitating the collection of premiums through their infrastructure. Partners incur a cost during this process and as a going concern, the right incentive must be considered for these services.

### Livestock Insurance

**Key findings** - Livestock sales are continuous and premium collection is case by case basis. Before National program premium was 100% paid by the farmers at the rate of 4.5% of the value of the animal. The product was affordable, but the challenge was methodology of premium collection since most customers were individual farmers purchasing insurance through Livestock distribution outlet. With the shift of distribution focusing on a partnership model, the efficiency of premium collection has improved, most partners pre-finance or pays 100% subsidy on behalf of the farmers.

With the One Cow Program there is a 100% premium subsidy for the first year on the livestock insurance cover and Government does not provide the subsidy beyond year one. The assumption is, there is no renewal for these products, and if any it is very minimal. All interviewed farmers have not renewed, they mentioned that they do not understand the renewal process and paying 100% of premium at once presents them with a challenge because they fall in the category of the very poor.

### Recommendation

1. Provide this 100% premium subsidy for two years instead of one in order to allow these BoP households sufficient time to acclimatise to the new information and training and also get to a point where the animal is now producing milk and is thereby impacting their income.
2. To prepare for when they eventually start paying the premium, create a system with a payment plan for the One Cow Program linked to an auto renewal system with easy, affordable and accessible premium payment method. Explore the use of mobile Money or use mobile agent shop at sector/cell level as premium payments points.





## Product is inclusive

It aims to evaluate whether the product is structured and delivered in such a way that it reaches its target population, i.e. smallholder farmers. To assess this, we compare the proportion of smallholder farmers at country level, to the proportion of smallholder farmers in the portfolio.

### Maize Insurance

**Key findings** - ACRE Africa Maize product covers farmers with small hectares, some insured farmers are paying as low premium as RFW 4,000 (\$ 4). The product covers farmers with less than 0.5 ha, representing majority of smallholder farmers in Rwanda. Most farmers interviewed had an average of 10-15 Are (10m X 10m= 100 sqm=1 Are i.e 1 Ha= 100 Ares). However, farmers who are not part of the Agricultural cooperatives or any aggregation unit cannot get access to the products. ACRE Africa is willing to provide insurance such groups of farmers, but the cost of distribution is high to consider targeting smaller groups or individual farmers.

Both male and Female farmers have equal chances of buying the product. From the interviewed farmers 67% were women and this is an indicator that they are actively involved in agricultural activities. ACRE Africa data is not capturing the gender details and we could not distinguish the gender of the insured customers. Depending on distribution channel, data is captured differently, and in some account, ACRE Africa does not collect specific individual farmer details.

There is platform like BK TechHouse technologies that offer opportunity of bundling Insurance with inputs distribution such as seed and fertilizer. Such platform provides a good opportunity on bundling innovation that is available for all. BK TechHouse has introduced Mobile Order Processing Application (MOPA) that will see Agro-dealers directly ordering for Agro-inputs from suppliers and make payments via the platform. A total of 1,200,000 farmers were registered in the season 2019 A while registration is open for the season 2019 B. So far, 600,000 farmers have registered (Hope Magazine, March 2019)

### Recommendations

1. Bundling insurance with other inputs offers a good opportunity for farmers outside cooperative to purchase insurance since every farmer purchase inputs. Consultant recommends ACRE Africa to innovate a bundling product with BK TechHouse and open a potential opportunity of serving over 1 million farmers per season.
2. Centralised system for data management capturing product beneficiary should be design- ACRE Africa to consider mobile App or USSD app development for client registration.

3. ACRE Africa should adapt its data policy to include gender, specific location and other relevant disaggregation of data in order to customise its products and thereby improve its customer experience and retention rate.

### Livestock Insurance

**Key findings** - The product cover has no limit on the number of animals making it accessible to all livestock keepers in Rwanda. Delivering inclusivity at distribution is a challenge because of cost on retail sales. ACRE Africa through a livestock outlet model created a network of veterinary doctors to support direct sales and give opportunity dairy farmers to buy. One Cow program is designed to benefit the most vulnerable with the goal of uplifting them from poverty. Like crop Insurance there was no data to guide on the gender of the Insured, however, it should be noted that ACRE Africa considers one household as an insurable unit.

### Recommendation

Just like crop insurance there is need for a centralised system for data management capturing product beneficiary should be design- ACRE Africa to consider mobile App or USSD app development for client registration. This will help track key KPI's like age, farmer location, gender, etc

## 3.0 Design

10. Product delivers adequate coverage for money
11. Benefits delivered in a **timely** manner
12. Procedure to deliver benefits is **reliable** and **understood**
13. Provider is **responsive** and proactive about questions, problems and complaints
14. Covered farmers receive **evidence of coverage**

### 10

#### Product Delivers adequate Coverage for money

It aims to evaluate whether the level of coverage provided is adequate for the price paid. To do that, we look at the ratio between pure premium and full premium. The pure premium covers for expected losses from the insured risk, while the full premium adds an amount to that for administrative costs, uncertainty, etc. The ratio [pure premium / full premium] therefore provides an estimate of how much of the premium paid is used for risk coverage, and how much is used to cover extra expenses.

#### Maize Insurance

**Key findings** - The product offered only covers the cost of inputs and some channels are not putting into consideration labour or rather the total cost of production. In some geographies the insurance covers full cost of production and in some channels, it looks only into loan amounts. According to farmers their production cost was broken into;

Cost of production	Cost per hectare (RWF)
Seeds	276,000
DAP	492,660
Urea	320,085
Manure	3,450
Labor	1035000
Total per hectare	2,127,195 (USD 2,251)

#### Recommendation

Designing a product that offers full coverage from land preparation to harvest inclusive of labour.

Farming is an investment for many small households and in most cases labour and land management is costly hence a product that is based on the total cost of production.

It is evident that labour is quite costly, yet the maize product only covered for the cost of inputs.

The interviewed farmers also complained of having received less compensation than they expected based on their loss experience and at times no pay-out at all despite having experienced a total loss. Farmers reported that in 2014, when they first took insurance, they all paid premiums but when it was time for compensation, only a few farmers received the pay-out despite experiencing losses from the same peril.

#### Livestock

**Key findings** - The current indemnity product compensates for the loss of an animal and the cover provides coverage equal to the value of the cow. However, there are more costs associated with the process. The farmer incurs all the Veterinary doctor costs including post-mortem and any other valuation costs during the contract period which makes the product costly for farmers.

In the government scheme under the one cow program, the compensation is in the form of cash to the district. District will then take the responsibility of purchasing another cow for the farmer.

## Recommendation

The insurance company/ACRE Africa should base total coverage on the value of the cow as well as the value of sustaining the cow throughout the cover period. This will slightly increase the premium rate but then it means instead of the farmer paying the Vet for any services offered, the process will work like health insurance where in case of a problem the farmer contacts the insurance company who will then send their Vet doctor who will treat the animal, fill a form and get his payment for services offered from the insurance company instead of the farmer. However, when compensation is made, they will be based on the total value of the cow. This recommendation might require further research as this kind of product might be hard to administer at this stage, it can make the product complex, yet we are still stabilizing the basics with accidental death cover.

A second option could be doing a hybrid product of indemnity and Index based livestock insurance. This will help farmers get compensation in cases of reduction in forage that will enable them to purchase more feed and sustain their animals throughout the period.

## 11

### Benefits Delivered in a Timely Manner

It assesses whether benefits are delivered in a timely manner, to allow farmers to replant, repay their loans, make investment decisions for the next year and avoid costly coping mechanisms. Although different timing might meet these criteria, index products also hold the promise to pay fast, since no loss assessments are needed.

### Maize Insurance

**Key findings** - Claim payment should be timely to enable farmers to buy inputs for the next season. However, there was a mixed reaction from farmers interviewed. While some group of farmers reported that compensations were paid on time, another section hinted that pay-outs were made two months after the end of the season. Will index payout is automatic while payout from AYII takes a bit of time due to the time spent waiting for the National institute of statistics to make yield surveys, process and publish data on which we base our AYII payment. Waiting period for data from the institute delays the payment process.

Some older farmers who participated in the ACRE Africa-SCBF project in 2011-2012 were impressed by the compensation process as it took only 15 days after the season end to receive pay-outs, however for the following three seasons, they didn't receive any pay-out despite the same perils having occurred and this demoralized them and they didn't take insurance in the following season because they no longer trusted the process including the conditions of a pay-out.

## Recommendation

1. An index product should pay claims as soon as a contract triggers. ACRE Africa could partner with InsurTech and utilise their platform to monitor claims and the insurer will also use the same platform and they will automatically receive a notification when a contract is triggered. This will enable them plan well on how much claims to expect and this will enable them to pay claims as soon as the contract ends. This platform will also promote transparency between ACRE Africa, the Insurer and partners.
2. The second option could be exploring potential of ACRE Africa paying claims, that means they would need to develop a basis risk fund for quick claim payment instead of waiting for the insurer who at times takes some time to approve a claim. This could mean ACRE Africa will enter a partnership with the insurer and agree on claim management like it is for the product design and premium collection. This basically considering ACRE Africa taking some limited underwriting responsibility on behalf of the insurer. Mobile App or USSD app development for client registration. This will help track key KPI's like age, farmer location, gender, etc



## Livestock Insurance

**Key findings** - The process for claim payment takes some time for livestock insurance. When a cow dies, the farmer notifies ACRE Africa through a helpline within 24 hours who will then send a registered veterinary surgeon to perform post-mortem and there after the claim process begins.

### Recommendation

Since the animal registration is through a mobile app, the same mobile app could be linked to a USSD. When an animal dies, the farmer will dial the USSD code, enter their details which are readily available in the app, then report their claim. The app will then automatically notify the nearest Vet doctor who will then visit the farmer for a post-mortem. The Vet will assess the cow, take photos and share the photos through the app together with his report. The insurance company will then remit claim payment through the mobile phone as soon as they approve the claim.

## 12

### Procedure to Deliver benefits is reliable and understood

It evaluates whether the procedure to deliver benefits is reliable, and whether farmers can understand it. Having a documented procedure in place to deliver benefit is considered a first step to ensure that the processes can be reliably and consistently implemented in every area where the product is distributed. The notion of reliability also looks at the adequacy of the procedure. For example, the procedure should not contain or lead to substantial barriers to the collection of benefits, such as costs for the farmer. The evaluation relies on management interviews and documentation review to identify whether such procedure exists. Interviews with covered farmers can indicate whether these procedures are implemented and understood by farmers.

## Maize Insurance

**Key Findings** - Farmers receive claim payment through the cooperative. In case of a claim, the insurance company delivers the payment amount to the cooperative who will then distribute to the eligible farmers. The farmers understand this is the case, but then at times this process could delay settlement since different individuals are involved in the process. From the farmers experience because of the cooperative approach and the one policy holder being the coop, they receive a lumpsum from the local underwriter in the form of a cheque which means they have to wait for some time before the cheque matures and the amount is finally distributed to each individual farmer.

For the case of the government Area Yield index insurance program, the farmers have a challenge in understanding the yield guarantee basis. Their key concerns being that the thresholds are set lower than their historical yield experience.

**The pay-out process is long and could take time before farmers get compensation and this could also make farmers.**

Pay-out process- Acre calculates the pay-out and submit eligible list to underwriter with payments account and farmers schedule.

Underwriter will deposit the amount into cooperative bank. The same farmers schedule was submitted to cooperative and cooperative will use.

### Recommendation

The process of claim settlement should be well documented for farmer understanding. The cooperative and the farmers should be well trained and provided with the details of the settlement. For transparency, the farmers should be provided with reports on season performance as the contract runs. For the government program, the Area Yield index insurance could be done at the lowest administrative level but of course after considering data availability which will require coopetition between the product design team and the government in ensuring yield data is captured and well recorded.

## Livestock

**Key Finding** - For the case of the government project, the district is the policyholder on behalf of the farmer. In case of a loss, the insurer pays the district who will then buy another cow for the farmer. The project is still in its pilot phase and farmers understand this is the process. However, the farmers and vets are concerned that the compensation process is very slow.

The indemnity livestock product offered by ACRE Africa pays claims to individual farmers upon verification by the insurance company through the Veterinary doctor. However, this process is also slow since it involves notifying the provider, gets a veterinary post-mortem and assessment and upon verification by the insurer, the claim process begins.

## Recommendation

There is need to simplify the levels of claim settlement and the need for technology integration, especially in reporting. The claim process should also be well documented including the timelines to receive a pay-out to avoid mistrust between the farmers and the service provider.

## 13

### Provider is responsive and Proactive about Questions

It evaluates whether a mechanism exists to address complaints, questions and problems that farmers may face. To be efficient, this mechanism must be known to farmers, and able to effectively resolve issues. The evaluation relies on management interviews to identify whether a form mechanism is in place and what the process is. Farmers' interviews provide information on whether the mechanism is known and effective.

### Maize Insurance

**Key findings** - The farmers communicate and mostly rely on information provided to them by the cooperatives. The cooperatives are mostly trained by the insurance companies on the terms and exclusions of the contract since they are the main policyholders on behalf of the farmer. However, they do not have enough information on the claim process and at times are not in a position to give candid feedback in cases of delayed payment or cases where farmers experienced losses and not receive any pay-out.

There is no direct link between smallholder farmers and ACRE Africa. It is important to open this channel to support farmer cooperatives on the technical queries and challenges. Channels such as farmer cooperatives have a strong relationship with farmers and are always trusted but they don't have adequate capacity to proactively respond on the technical issues related to insurance.

## Recommendation

The insurance companies/product design team should create a USSD in both English and Kinyarwanda where farmers can enter their details, get their cover details and the USSD code at the end of the process will require farmers to ask any questions they have and immediately receive feedback and the USSD could also be made a toll free number where farmers can dial and be directed to someone to speak to. Alternatively, use of Interactive voice response (IVR) is also feasible since the farmer would incur no cost and would have access to pre-recorded Frequently Asked Questions (FAQs).

## Livestock

**Key Finding** - ACRE Africa provided a helpline for farmers to call and report losses. However, at times it could take some time for their calls to be answered. Since this product is offered at individual level, the farmers lack the knowledge and education on the details of the product owing to the low literacy levels. For the government scheme, registration is at the village level and only farmers in category 1 and 2 of the vulnerable persons are eligible to benefit. The list is then considered at the district level for issuance of the cow depending with the availability of funds. The selected farmers receive training at the district level. This whole process is complicated and not well understood by the farmers.

## Recommendation

The farmers could be aggregated to cooperatives for the government program to promote ease of premium payment and farmer trainings as well by leveraging on one cow program infrastructure with proper monitoring and evaluation tools.



## Covered farmers receive evidence of coverage

It assesses whether covered farmers receive evidence of coverage using appropriate language, in a way that they can understand and is useful to them. It looks at the kind of documents and (video) training provided to farmers.

## Maize Crop Insurance

**Key findings** - The cooperative aggregate the premium and remit to the insurance company on behalf of the farmers. They are then given the policy document to hold on behalf of the farmers. The policy document in most cases is written in English which is not understood by many people at the cooperative management level, making it hard for them to explain the same to the farmers. Farmer don't receive policy document. Some of the farmers received product brochures but the brochures are not translated in local languages. Current NAIS program have translated its brochures and farmers appreciate having products translated in their local languages.

Claim documentations are not also available to the farmers and this makes it hard for them to understand the basis of the claim payment amount. Technical Index models or formulae used as a basis for claims calculation is not clear to farmers and even distribution channels.

### Recommendation

1. Farmer onboarding should be done using an online platform while capturing all their details and when the premium payment is confirmed, the salesperson will generate the policy document automatically and issue to the cooperative in real time. This will fasten the process of policy issuance and the same is done for claims. The online platform will be structured in such a way that the salesperson will be able to download the file with the list of farmers and their claim amounts.
2. Once the policy is issued, ACRE Africa can send policy SMS to farmer with details of coverage value. Potential adoption of USSD innovation can be considered. This platform offers smallholder farmers opportunity to tract their policies on their feature phones.

## Livestock Insurance

**Key findings** - The livestock cover under the government program is done at the district level. The cover is then distributed per individual basis making the entire process difficult to the farmer from premium payment which has to be done to the insurance company's bank account, to the animal registration which has to be undertaken by the sector vet on a mobile app to the fact that no policy document is received upon payment of the premium and the only proof of payment available to the farmer is the bank slip. Payment of premium is paid by the District (policy holder) on behalf of farmers. Farmers from category 1 and 2 under the government one cow program are not involved in premium payment.

### Recommendation

Since farmer onboarding is already being done using a mobile application, the same application could be integrated with a USSD platform. Using this same channel and upon payment completion, there is an opportunity to adapt the system so that a farmer can dial, enter their details, and automatically receive notification of payment confirmation and the cover details.



## Annex 1- Acre Rwanda Client portfolio analysis

This analysis is based on historical raw data shared by ACRE Africa.

It is data for crop insurance (2013-2018) for both season A and Season B and Livestock Insurance data for 2015-2019.

The data is available [\*\*here\*\*](#).



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