

# **Evaluation of a gamified mLearning solution for training micro insurance agents in Kenya**

Rupsha Banerjee  
International Livestock Research institute

Diba Galgalo  
International Livestock Research institute

Nathan Jensen  
International Livestock Research Institute

Duncan Khalai  
International Livestock Research Institute

Andrew Mude  
International Livestock Research Institute

Phillip Sambati  
International Livestock Research Institute

**Formative evaluation report**

**Accepted by 3ie: July 2020**



## About 3ie

The International Initiative for Impact Evaluation (3ie) promotes evidence-informed equitable, inclusive and sustainable development. We support the generation and effective use of high-quality evidence to inform decision-making and improve the lives of people living in poverty in low-and middle-income countries. We provide guidance and support to produce, synthesise and quality-assure evidence of what works, for whom, how, why and at what cost.

## About this formative study

This formative evaluation was submitted in partial fulfilment of the requirements of grant TW13.I.1036 awarded under Agricultural Insurance Evidence Programme. This version of the report is technically sound and 3ie is making it available to the public in this final report version as it was received. No further work has been done.

The 3ie technical quality assurance team comprises Bidisha Barooah, Rosaine Yegbemey, Stuti Tripathi and Deeksha Ahuja with overall technical supervision by Marie Gaarder.

All content is the sole responsibility of the authors and does not represent the opinions of 3ie, its donors or its board of commissioners. Any errors and omissions are the sole responsibility of the authors. All affiliations of the authors listed in the title page are those that were in effect at the time the report was submitted. Please direct all comments or queries to the corresponding author, Nathan Jensen, at: [n.jensen@cgiar.org](mailto:n.jensen@cgiar.org).

3ie received funding for the Agricultural Insurance Evidence Programme by UK aid through the Department for International Development. A complete listing of all of 3ie's donors is available on the [3ie website](#).

Suggested citation: Banerjee, R, Galgalo, D, Jensen, N, Khalai, D, Mude, A and Sambati, P 2020. *Evaluation of a gamified mLearning solution for training micro insurance agents in Kenya*, 3ie Formative Evaluation Report. New Delhi: International Initiative for Impact Evaluation (3ie). Available at: <https://doi.org/10.23846/TW13FE10>.

## **Acknowledgements**

We gratefully acknowledge funding from International Initiative for Impact Evaluation, Inc. (3ie) for providing funding for this project under the Thematic Window 13 - *Agricultural insurance: assessing the impact of programmes targeted at smallholder farmers*. We are also would like to thank Takaful Insurance of Africa for its support, especially Anne Wairimu Gatuma, Carol Wangeci and the TIA county coordinators and sales agents that participated in the study.

## Executive summary

This report is on an innovative application of mLearning, SMS and IVR to resolve challenges in training sales agents for an index-based micro-insurance product – the IBLI Asset Protection Contract. The IBLI contract was designed by the IBLI Unit within ILRI to provide insurance coverage for livestock losses due to drought among seminomadic pastoralists in the Horn of Africa. IBLI is currently being sold by Takaful Insurance of Africa (TIA) in seven counties of northern Kenya and in one region of southern Ethiopia with plans to expand to other countries in the Horn of Africa in the near future. Under the TIA agency structure, sales agents are recruited from persons of standing in the local community such as shop keepers. Those agents are responsible for all of the product’s marketing, including awareness building, client education, and sales transactions.

TIA recognizes the importance of having well informed agents who can explain the product clearly to clients and who appreciate the potential of the product to improve the lives of pastoralists. TIA also understands that in order for these agents to be active in promoting the product, they must themselves understand and trust the product. As Guarnaschelli, Cassar & Dalal (2012, p.12) put it, ‘[i]f sales staff do not see value in the product, they will have difficulty convincing others’.

Most TIA sales agents are remotely located and sales of the IBLI product account for only a small proportion of their income. Because of the long distances they have to travel to attend centralized face-to-face training workshops, agents are sometimes reluctant to attend the biannual trainings, which take place before each sales window. The costs of these trainings are also a significant cost for TIA and one of the reasons why their microinsurance portfolio has yet to break even. This situation will become even more difficult as TIA expands into Somalia and Sudan where it has even less staff and infrastructure.

The challenge then is to find a more cost-effective way to train agents in remote locations. This report is on a formative evaluation of a mobile-based learning platform (mLearning), SMS educational courses, a phone survey for tracking awareness and knowledge, and an IVR platform for answering FAQs. We found that the mLearning approach is promising but that insurance firms will need to provide additional motivation if they would like to have high course completion rates. Both the SMS and IVR approaches to education were also promising and experiences higher rates of participation, although the courses were much shorter and less technical. We also piloted the use of a phone surveys to track client and agent knowledge, which worked well in that it was not costly, participation rates were high, and it collected high quality data.

This evaluation allowed us to pilot a number of activities on a small scale to address technical challenges, learn from failures, and identify approaches that seem promising for our objectives and the environment. We plan to use the lessons learned and techniques tested here to inform a larger agenda around client and agent extension for informed demand and impacts.

# Contents

Acknowledgements.....	i
Executive summary.....	ii
List of figures and tables .....	iv
Abbreviations and acronyms .....	v
1. Introduction .....	1
2. Context.....	2
3. Intervention description.....	3
4. Description of the Theory of Change .....	4
5. Monitoring plan .....	6
6. Evaluation questions and primary outcomes.....	7
7. Evaluation design, data and methods.....	7
8. Study timeline.....	8
9. Findings from the evaluation.....	8
10. Implications of study findings .....	11
11. Major challenges and lessons learnt .....	12
Appendix A: SMS course content.....	13
Appendix B: IVR content .....	17
Appendix C: Agent Survey .....	20
Appendix D: Client Survey .....	25
References.....	30

## List of figures and tables

Figure 1: Formative Evaluation Theory of Change .....	5
Figure 2: Understanding of the risk that IBLI covers .....	10
Table 1: Timeline of Key Activities.....	8
Table 2: Summary of agent and client IBLI knowledge quiz scores (%).....	10
Table 3: The relationship between agent and client score .....	11

## **Abbreviations and acronyms**

ASAL	Arid and Semi - Arid Lands
APA	Apollo Pan Africa Insurance
FAQ	Frequently Asked Questions
IBLI	Index Based Livestock Insurance
IBLT	Index Based Livestock Takaful
ICT	Information Communication Technology
ILRI	International Livestock Research Institute
IVR	Interactive Voice Response
KLIP	Kenya Livestock Insurance Program
RCT	Randomized Controlled Trial
SMS	Short Message Service
TIA	Takaful Insurance of Africa
TOC	Theory of Change
UCSD	University of California, San Diego

# 1. Introduction

Pastoralists in the Horn of Africa have little or no access to insurance for their primary asset, livestock. Since 2010, ILRI scientists and their collaborators have been working to develop and market an index based livestock insurance (IBLI) contract for the region that protects households from the shock of livestock mortality due to drought. The IBLI contract relies on satellite readings to measure forage scarcity. When forage levels in a region fall considerably below historic norms, a payout is triggered.

IBLI is currently being sold in 7 counties of northern Kenya, in Ethiopia, and has plans to expand services to other ASAL region in the Horn of Africa in the near future. In addition, Kenya's State Department of Livestock recently launched the KLIP program, which is a safety net program that uses IBLI policies to protect the poor and vulnerable from the impacts of drought. Although IBLI has seen great growth since it was launched, it still faces a number of challenges associated with extension and marketing index insurance to a client base that is often illiterate, geographically mobile and dispersed, and frequently unfamiliar with insurance in any form. While research points to the need for building trust in a product by ensuring that potential clients fully understand how the policies work (De Bock & Gelade 2012), the reality is that index insurance has very low margins so it is not cost effective to launch expensive education campaigns. Instead, IBLI's partners rely on their sales force to advertise to and to educate potential clients. Naturally, this means that these sales agents must have a comprehensive understanding of the product themselves. Up until now, this understanding has been built through costly face-to-face training workshops conducted just before biannual sales windows. Although these efforts have proven to be partially successful, they are expensive and the knowledge of trained sales agents often falls short of reasonable expectations.

Remote mLearning offers a number of potential advantages over the traditional face-to-face training including: more sustained, consistent and better-timed trainings, reduced cost, and real-time monitoring of the individual agents' training progress and product knowledge. However, because agents complete their courses remotely, they do so under less direct supervision, which can lead to low effort and/or low completion rates.

While a number of authors have proclaimed that the familiarity, prevalence of ownership, and accessibility of mobile phones make them the future of education in Africa (Asabere 2013; Blumel 2014; Kelebeg *et al.* 2016), it is also clear that 'information gaps exist in how much we know about the effectiveness of ICT-enabled training' (Blumel 2014, p.23). As Blumel (2014, p.24), looking at the potential for using ICTs in workforce training notes, 'Different communities face different constraints and opportunities across several dimensions ....[and] ....more research needs to be done to make information available to implementers, so they can apply best practices in their projects'. Moreover, none of the agencies reviewed by in a survey of micro-insurance products reported using of mobile learning (Guarnascelli, Cassar and Dalal 2012), which begs the question, why?

In 2014 ILRI in collaboration with TIA, conducted a study on TIA's agency model, to answer the question; "How can the current situation be improved to implement a cost-effective, sustainable agency model that supports digital marketing and capacity development for IBLI in pastoralist areas?" The study found out that, there was indeed viability for a digitized agency model, although, there was a clear dichotomy in the TIA

vision for a digitized agency model versus the realities of the current agency structure because of high levels of illiteracy and semi-literacy among its agents.

In 2015, IBLI conducted a small scale RCT in collaboration with UCSD to examine mLearning and gamification as supplementary training. The project showed that TIA sales agents who were motivated by phone credits or gamification to follow a simple course that reinforced training previously received, not only did better on the quiz, but also significantly outsold their counterparts who either did not receive the quiz or who were invited to answer quiz questions without any reward structure (Lyons 2015). The results of this study lead us to anticipate that the proposed intervention, which aims to replace face to face training completely, has a high potential for increasing demand and reducing overhead costs in the current context.

This evaluation sought to look into the potential of mLearning and other ICT-related approaches for cost effective training and data collection in the ASAL areas. This evaluation allowed us to pilot a number of approaches on a small scale to address technical challenges, learn from failures and adapt the design for scalability and sustainability.

The following report entails details of the evaluation as follows; Section 2 provides a brief description of the context, followed by sections 3 and 4 that describe the intervention and monitoring plans, respectively. We then state the evaluation questions and describe how they were evaluated in section 5, followed by a description of the evaluation design in section 6. The study timeline and the findings are in sections 7 and 8, respectively, while section 9 and 10 provide details on the implications of the study and the challenges and lessons learnt, respectively.

## **2. Context**

Extension and education is an integral part of adoption of different technologies. For IBLI it is no different, agents are hired by the insurance companies, trained, and tasked with the responsibility of carrying out extension, marketing activities and selling the product to prospective clients. Both of IBLI's insurance partners in Kenya (TIA and APA) have cumulatively sold over 14,000 contracts in the past 7 years in 6 ASAL counties of Kenya. Since 2015, IBLI has also been adopted by the Government of Kenya as the Kenya Livestock Insurance Program (KLIP), reaching over 15,000 households in 7 counties in the ASAL counties of Kenya. In both the voluntary (IBLI) and transfer (KLIP) cases, extension—creating awareness of the product so that i) there is informed demand ii) the clients/beneficiaries have accurate information about the product—has been a key weakness of the marketing and sales strategies used. The current approach of relying almost entirely on intensive face-to-face meetings to train agents, who are then to provide extension and marketing services, is both expensive and unsustainable. Furthermore, it is not clear that it is successfully generate informed demand. For example, of the 1,424 individuals that purchased insurance from TIA between 2015 and 2017 in Isiolo, Marsabit and Tana River Counties, the region that the interventions of this study take place in, 201 purchased policies more than once.<sup>1</sup>

---

<sup>1</sup> Insurance sales were launched in Wajir in 2015, in Marsabit in 2016, and in Tana River in 2016. Insurance policies provide coverage for 12 months.

Since the adoption of the three-tier agency model in 2015, TIA has made a deliberate effort to reduce the cost of transactions within the agency model. The company adopted a strategy to reduce the number of lead agents in order to cut down on recurrent costs, while increasing the number of sub-agents to enhance the ground coverage and volume of IBLI sales. A refined mobile-based sales transaction platform was also introduced to ensure easier, faster and more transparent IBLT sales, transactions by the agents. TIA has been able to attain extensive field presence and an improved level of client trust. However, insights and reports from the field during the IBLT sales periods and from 2017 agency study by ILRI in Isiolo County, indicate that some agents are not able to use the mobile phones, while others shy away from the system simply because they do not feel confident using digital technology. Varying literacy levels among the sub-agents is also a hindrance to effective communication and learning. Partially in response to these realizations, TIA has committed to transitioning to a fully digital sales force in the near future.

The potential of mobile platforms for training in Africa is widely recognized (Asabere 2013; Blumel 2014; GSMA 2015; Kelebeng et al. 2016) and even more so in Kenya (known locally as ‘Silicon Savannah’). However, in the ASALs, face-to-face training remains the norm and, across the spectrum and very little is known about the potential for gamified mobile learning applications. An evaluation of the potential for mobile learning in Kenya is timely, especially for the private sector, research institutes, NGOs and donor funded projects challenged with providing cost effect training in the sparsely populated ASAL areas.

### **3. Intervention description**

This research was done in partnership with Takaful Insurance of Africa (TIA) to learn about the feasibility of alternative methods for agent training, data collection, and information dissemination. Previous to the work described in this report, ILRI had worked with TIA to develop an electronic computer-based agent training course in order to standardize trainings, which it is now using to train its agents. These trainings are done in large groups and in a central location. The initial work of this project was to port that eLearning course into a mobile-based (mLearning) course, which required reworking content for small mobile screens.

The mLearning course is composed of 11 topic-based modules. Each module contains a video and text explaining key concepts. Most of the modules include required review questions that are answered while the participant navigates the module. Participants can return to old modules at any time for review are as use as a job aid. Course completion requires a minimum of 10 hours and usually around 13 hours as long and the application is running well on the mobile device. The course contains a pre-assessment, taken immediately after the introductory and application use section, and a post-assessment after completion of the course.

We then piloted the mLearning course with over 50 agents and tracked their progress. During this first mLearning pilot engagement with the agents in January/February 2017, the learning application still contained many bugs and therefore most of the agents experienced challenges (see section 11 for more details). Although this process was educational, we did not feel comfortable pushing participants to spend their time trying to

complete the course when the application often failed. We did collect a great deal of feedback on the application and its content.

After working to fix many of the issues with the application, we re-piloted the mLearning course with a smaller group of agents in the following insurance period. We scaled back our objectives considerably for this second pilot. Rather than testing for the effectiveness of the training, we set our focus on learning about the effort required for an agent to complete the course and receiving feedback with which to improve the course. To do that, we worked to eliminate as many obstacles to completion that we could identify by way of selection; we purposefully selected 10 agents from Isiolo, where connectivity is high, that were literate and know how to use a smartphone. The ten participants received a cash incentive of \$20 for successful completion within 1 week after the enrolment time, and an additional \$10 to refund the data costs of syncing their phones. Those who could not complete within the 1 week period only received the \$10 cash token for phone airtime facilitation.

We also developed and piloted an SMS refresher course and an Interactive Voice Response (IVR) platform for answering frequently asked questions with agents and their clients. The agents that participated in the mLearning re-pilot and their clients received an SMS asking if they would like to subscribe to a short course detailing IBLI contracts details that people often asked about. This initial SMS also stated that we would reimburse the participants for the costs of SMSs that they would use responding to our quiz questions and provide an additional 100 KSH (~1.03 USD) for those that completed the course and responded to all questions correctly. Those that choose to opt-in, could choose to have the materials sent in either English or Swahili.

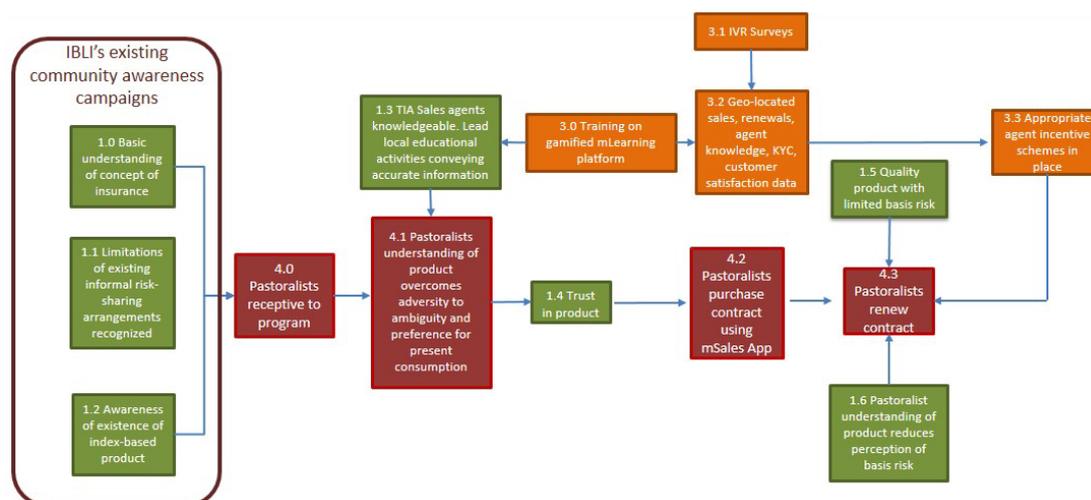
The final SMS of the course informed participants that they would receive a call from our IVR system. The participant had the option of using the IVR system if they choose. The system also has a feature by which individuals can “flash” a phone number, which causes the IVR system to call them back; that way there were no costs incurred by participants to use the IVR system. The content of those courses are found in Appendix 1 and 2. The 10 agents from the second mLearning pilot were offered the opportunity to opt into a refresher course via SMS, after they had completed the m-learning course.

Finally, we tested phone surveys as a means for learning about the transmission of information from agents to their clients. We called all 64 agents from the original mLearning pilot and 565 clients. The surveys were collected by enumerators in Nairobi using Google Forms. The survey questions are found in Appendix 3 and 4.

#### **4. Description of the Theory of Change**

IBLI has been conducting community awareness campaigns for the IBLI Asset Protection contract in the ASALs for some time (Boxes 1.0, 1.1 & 1.2, Figure 1). Household surveys and periodic community dialogues (focus group discussions) conducted by IBLI indicate that these activities have already resulted in many pastoralists being receptive to the idea of microinsurance as a potential risk mitigation strategy (Box 4.0, Figure 1).

**Figure 1: Formative Evaluation Theory of Change**



The gamified mLearning initiative (Box 3.0, Figure 1) aimed to improve the knowledge had by TIA sales agents and the knowledge that they conveyed about the product to prospective clients (Box 1.3, Figure 1). The eLearning/mLearning course is based on a successful face-to-face course conducted in 2015. When this training was rolled out across six Counties in the ASAL areas of Kenya, analysis of pre and post-tests showed a significant improvements in knowledge levels ( $p = 6.4 \times 10^{-8}$ ) with a medium effect size ( $d = 0.04$ ). Based on this, hoped that agents would follow and succeed in the course.

There is a risk is that, even with correct knowledge, agents will choose to misrepresent the contract in order to increase sales. This 'mis-sale' issue is discussed by Guarnaschelli, Cassar and Dalal (2012). They note that the mis-sale issue has been addressed by some agencies by adjusting agents' incentive structures to reflect a combination of sales, client satisfaction and client knowledge. In this formative evaluation, we experimented with methods of communicating directly with clients, which we hope could reduce mis-sales since prospective clients would have alternative sources of information, and which could be used to monitor and quickly identify specific agents that seem to be mis-representing the product. We are working to integrate the client-level information into TIA's Know Your Customer dashboard of geolocated sales, renewals, agent knowledge, and customer satisfaction data (Box 3.2).

The availability of a quality microinsurance product with limited basis risk (Box 1.5), and enhanced pastoralist understanding of the product (Box 1.6) in the presence of educated agents acting under appropriate incentive schemes (Box 3.3) is expected to result in higher levels of contract renewals (Box 4.3). Basis risk is the risk of suffering a loss that is not indemnified. An impact study of a previous IBLI contract based on livestock mortality estimated that IBLI covered only 63% of the covariate herd mortality risk that pastoralist households faced (Jensen, Barrett & Mude 2016) suggesting relatively high levels of basis risk. However, Clarke (2012) notes that basis risk is always a problem in index based insurance and is one of the reasons why potential clients have to be well informed on the product to ensure that they do not become disenfranchised with, and lose trust in, the product as a result. Studies of demand for IBLI have found that exogenous improvements to the understanding of the product increases demand generally and makes clients respond more optimally to basis risk (Jensen, Mude & Barrett 2014).

Other literature notes that behavioral factors, such as ambiguity aversity and a preference for present consumption, can also interact with basis risk and product knowledge to work against uptake of microinsurance products (De Bock & Gelade 2012; Elabed & Carter 2015). Briefly, in the face of high basis risk and limited product understanding, potential clients who are adverse to the uncertainty associated with insurance, tend to develop overly negative perceptions about the likelihood of receiving a payout when they need it. Similarly, clients who do not trust the product will clearly perceive very little value from coverage. We expect that the availability of better product knowledge through access to better informed agents will improve demand by alleviating misconceptions of the product and properly informing clients of its shortcomings.

Finally, in terms of the sustainability of the IBLI initiative, contract renewals are far more important than contract sales. Based on interviews with microinsurance clients in India, Ugarte (2012) found that people with a lower level of product understanding were much less likely to renew; in fact, below a certain level of understanding, virtually nobody in his study renewed their contract. 'Selling insurance which is not understood properly thus seems a self-defeating strategy: When people lack a basic understanding of the product, they will probably not use it properly, feel deceived, and fail to renew' (De Bock & Gelade 2012, p.23). Based on this, we posit that better informed agents will be better able to retain clients. The agency structure of TIA, which relies of agents drawn from among respected members of the local community, is also likely to support higher levels of renewals

## **5. Monitoring plan**

TIA agreed to share its administrative data, which includes current and past information on agent sales and trainings and client information. This data allowed us to match clients to their region and the agent that they had purchased from. Furthermore, the mLearning app, SMS courses, and IVR platform all collected information on participants' participation, completion rates, and product knowledge as measured by quizzes.

Course completion rates and quiz scores were monitored electronically via the back end of the mlearning platform accessible only to the IBLI team members. In some cases, such as the initial mLearning application, we used the back-end information to identify agents that seemed to be stuck at registration and called them to provide support.

The number of subscriptions to the SMS course and quiz question responses were aggregated in FrontlineSMS (<http://www.frontlinesms.com/>), and IVR participation was monitored through EngageSPARK (<https://www.engagespark.com/>), which also hosted the IVR platform. Participants could also use these systems to ask questions on the process and we could respond through the SMS system. So, for example, when one participant needed to change phone numbers, he was able to send us that information directly.

Throughout the nine month intervention we held stakeholder meetings and feedback sessions with TIA, their field (sales) agents, the county coordinator, and clients. Recalling that our main objective of this evaluation was to experiment with strategies for improved learning, much of our effort and time was spent working with participants as they used the systems, asking for feedback and suggested changes, and iterating on our content and delivery approaches.

## **6. Evaluation questions and primary outcomes**

The first objective for phase 1 evaluation was to better understand the options with respect to agent training and gamification as a motivator for completing training. Although a number of microinsurance providers report using games effectively to develop understanding of insurance concepts and to motivate learners (Dror, Dalal & Matul 2012; Guarnaschelli, Cassar & Dalal 2012; McPeak, Chantarat, & Mude 2010), the use of a gamified mLearning course as a substitute for face-to-face training is a new innovation requiring careful evaluation. We were also interested in learning about the extent to which agent product-knowledge correlated with sales and how people would respond to other approaches to communication, IVR in this case. Our main evaluation questions were:

- 1) Can an mLearning solution be made to work in a remote and bandwidth challenged environment; does the level of user support required preclude scaling up in remote regions?
- 2) Is the mLearning course as effective as face-to-face training in developing an understanding of index based microinsurance and the IBLI Asset Protection Contract?
- 3) Is gamification effective in motivating sales agents to work through and do well in the course?
- 4) To what extent is sales agent knowledge correlated with contract sales and renewals?
- 5) Can automated, mobile-based Interactive Voice Response (IVR) systems be used effectively to gather data in ASAL areas?

Our primary outcomes to judge the mLearning, gamification, and IVR system were participation, completion rates and perceptions of the system.

## **7. Evaluation design, data and methods**

Our initial evaluation design was to run a randomized control trial between mLearning, mLearning with gamification, and traditional face-to-face training in order to answer our first four evaluation questions. We faced two main problems with our implementation that corrupted our design. The first was that the mobile application took the developer longer to produce than expected and the developer was slow to respond to issues. The result is that we had little time to test and debug the product before it went to pilot, and bugs that we identified persisted for some time. As the agent training period was starting, we were still not confident that the offline learning platform was of high quality. In addition, there were some more systemic issues with the offline platform that needed to be addressed. For example, the platform required email verification for registration. This, of course, is not appropriate for a platform aimed at individuals that are unlikely to have email. Other important issues were that the file size was too large to download from the cloud, so side loading was required, syncing the phone with the server (to record progress on the application) entailed too many steps, and the application would often show an error and shut down.

In addition, because the application was late, we were unable to test the gamification until the day before agent training started. Unfortunately, the gamification was confusing and unintuitive. It was built to only provide points after certain steps were completed and required syncing before points were awarded. The result is that even when the class worked through the first module together during training, agents did not receive any points. And points generated during the game did not follow an intuitive pattern, so that they provided little/no motivation at this first step.

Due to the afore mentioned issues, we did not push agents to complete the course. Rather, we call agents and documented the various issues that they had faced so that we could improve the application.

Fortunately, we had the opportunity to re-pilot the mLearning application. After working with the developer to improve the application, we re-piloted the application with a small subset of agents from Isiolo County. As discussed earlier, these agent were specifically selected so as to minimize issues related to connectivity and illiteracy.

Our objectives of the SMS, IVR and phone surveys were to test them for feasibility and then discuss with those that choose to participate and those that did not. This was a very qualitative and iterative process as we used feedback to improve content and delivery.

## 8. Study timeline

**Table 1: Timeline of Key Activities**

Activity	2016			2017											
	O	N	D	J	F	M	A	M	J	J	A	S			
1 <sup>st</sup> Stakeholder workshop	X														
mLearning application development	X	X	X	X											
TW13 Inception Workshop		X													
ILRI IRB Approval		X	X	X											
ILIR 3IE contract signed				X											
1 <sup>st</sup> mLearning training				X											
TIA sales window				X	X										
Worked with developer to improve app.						X	X	X	X	X					
Agent and client phone survey collected						X									
3IE Learning workshop held in New Delhi									X						
Develop SMS course content									X	X					
Develop IVR platform content									X	X					
TIA sales window												X	X		
2 <sup>nd</sup> mLearning pilot												X			
SMS course active												X	X		
IVR course active													X		
Final stakeholder engagement													X		
3IE final report writing												x	x		
Impact evaluation proposal writing												x	x		

## 9. Findings from the evaluation

Our first mLearning pilot taught us to be sure to work closely with the developer to ensure that our application is working well and is user friendly before bringing it to the field. Although this seems obvious, we had assumed that our large development firm would responsibly meet its deadlines and contractual agreements. That proved to be an incorrect assumption.

Because the RCT design was abandoned for determining who would be invited to the mLearning application and training, we do not have causal identification for the impacts

of being invited to the training on performance. Furthermore, since all of those trained on the mLearning application also received face-to-face training, any relationship found between the mLearning training is likely to not only be endogenous, it is also likely to be, in part, due to the face-to-face training.

In qualitative information collected during and after the pilot, agents always referred to ICT related problems—that the application was stalling and crashing, that their login was not working correctly, that modules were not unlocking as they progressed through the course—as the main barrier to course participation. Other related issues, such as phones that were too full to fit the application on, that the download failed, that an agent's phone had been lost or lent out, were also mentioned. But, we should note that many of these could have been overcome had the agent been motivated.

In our second mLearning pilot, after we had worked with the developer to improve the application, we did not set our hopes so high and knew much more about the issues that we would face. This time all the 10 agents that were trained on the mLearning application successfully enrolled in the course through the application (it was less than 10% in the first pilot). 5 of the agents completed the course and the other 5 completed above 70%. Discussions with those agents seem to indicate that some continued to face barriers related to the application user experience, that some no longer had access to their phones (e.g., returned, broke, lent out, etc.), and that motivation failed some near the end.

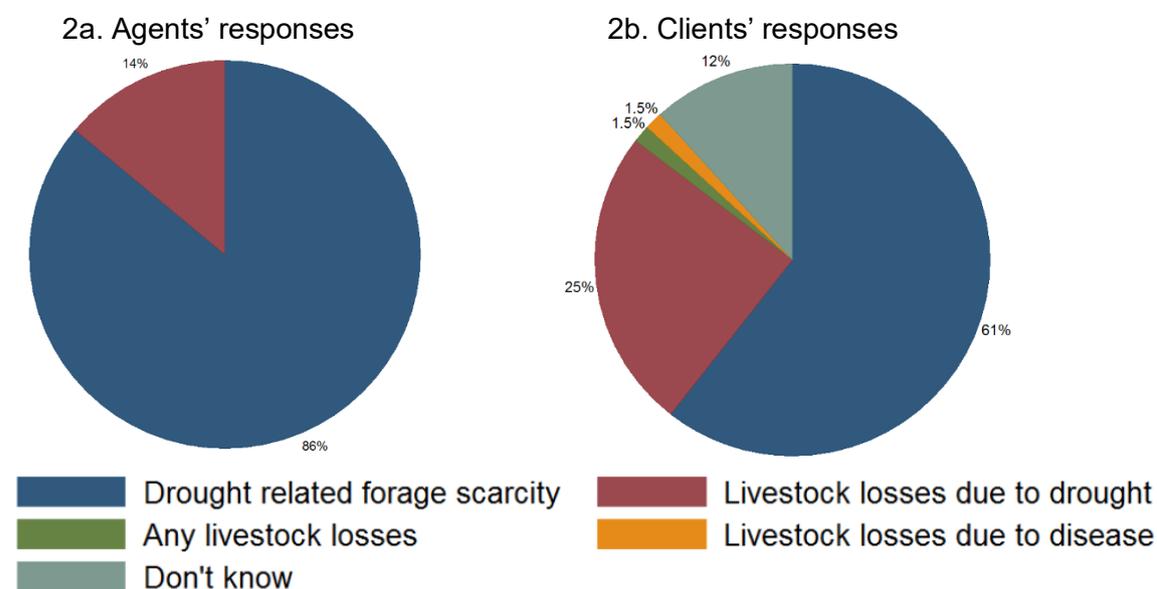
In neither the first nor the second pilot did gamification seem to provide motivation for participation in the training course. We have learned that for tasks that will require a great deal of effort, such as completing a long training course, we will need to use other approaches to motivating users. In the second pilot, where we specifically targeted those for whom connectivity would not be a major issue and provided a substantial cash incentive, participation and course completion increased dramatically, but was not universal. Given that the large cash incentives do not result in full completion and that they are not scalable, it is unlikely increasing cash incentives is the solution to low motivations. Rather, we will either work with the insurance company to identify alternative incentives (e.g., make course completion mandatory, hold raffles for those that complete the course) or, in the case of refresher courses, make them much less time intensive.

Opt-in and participation rates in our SMS and IVR courses were encouraging, considering that we had done little mobilization with the agents and no mobilization with the clients. Of the agents that we were able to contact, 66% opted in for the course and clients opted in at a rate slightly less than half of that. 67% of quiz questions were answered and of those only one response was incorrect. The quiz questions referred directly to content in previous lessons, so all quiz question responses should have been correct unless the participant did not read the content. Even so, the opt-in, participation, and correct response rates are very encouraging.

Of those that were invited to use the IVR platform, 80% interacted with it. Queries (which key they pressed) were more or less uniformly distributed across general product information and more specific queries on index readings or contact information. Most importantly for both the SMS course and the IVR platform, both agents and clients seemed capable of navigating the platforms and responses to questions illustrate that the lessons were being understood.

Similarly, phone survey of agents and clients proved to be a very cost effective method for learning about product understanding among respondents. Through it, we surveyed 37 agents and 135 clients. Of those, 86% of agents (Figure 2a) and 61% of clients (Figure 2b) correctly understood which risk IBLI provided coverage for.

**Figure 2: Understanding of the risk that IBLI covers**



Overall, the agents' scores were higher than that of the clients, but both groups responded to most of the questions correctly, on average (Table 2).

**Table 2: Summary of agent and client IBLI knowledge quiz scores (%)**

	Obs.	Mean	Std. Dev.	Minimum	Maximum
Agent	37	88.8	17.9	0	100
Client	135	63.8	30.8	0	100

Notes: Data collected by phone survey. All scores are in percentiles.

After matching clients to their agents, and dropping those for whom there is only a single agent-client match, we then run a regression of client knowledge onto a set of agent dummy variables. The agent dummy variables are able to account for 27% of the variation in score. And, although we are quite low powered due to many agents with only two or three clients represented, there is strong evidence that certain agents are related to especially poor client knowledge. For example, the average score of the three clients of "Agent 1", is much below the mean.

**Table 3: The relationship between agent and client score**

Agent	Quiz Score (%)	
	Coefficient Estimate	Std. Err.
1	-0.548**	(0.258)
2	-0.119	(0.258)
3	-0.405*	(0.216)
4	-0.162	(0.206)
5	-0.0159	(0.188)
6	-0.0952	(0.230)
7	-0.548**	(0.258)
8	-0.548**	(0.216)
9	-0.333	(0.230)
10	-0.219	(0.206)
11	-0.476*	(0.258)
12	-0.0190	(0.206)
13	-0.667***	(0.200)
14	-0.405	(0.258)
15	-0.348*	(0.186)
16	-0.256	(0.167)
Constant	0.905***	(0.163)
Observations	124	
R-squared	0.271	
Ajd R2	0.162	

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

We plan to use this method as a way of triangulation of information disseminated and for tracking the relationship between agent understanding and their clients. Issues with selection are a clear drawback of phone surveys, since we can only survey those that the insurance company has working phone numbers for and that we are able to reach by phone, but there are strategies for minimizing such bias.

## 10. Implications of study findings

The findings from the formative evaluation have caused us to move from a narrow focus on agent training to a broader agenda around extension. Although improved agent training, continues to fall under this broader agenda, we also intend to increase our interactions directly with clients. Client responsiveness to our outreach in Phase 1 highlighted that in focusing on the agents, we missed important and low-cost methods for extension activities targeted directly at the target populations. We are now discussing with TIA how they can implement the SMS courses on a much larger scale. We are also hoping to set up an IVR with the specific focus of reducing and catching mis-sales.

Our results from this intervention excited the State Department of Livestock into requesting that we (ILRI) partner with them to develop an SMS course for their KLIP beneficiaries. In this case, the motivation for extension is not to increase uptake. Rather, it is to make sure that those that receive an insurance transfer understand the product well so that they can make informed decisions and maximize their benefits.

This larger agenda of (prospective) client education is appealing because it more closely links to our team's main objective of improving household welfare. As we now pivot to working more directly with clients and non-clients, we will learn more about perceptions of the product, clients understanding of it, and how to improve it, which in turn should improve impacts.

## **11. Major challenges and lessons learnt**

Our primary challenges were related to the mLearning application and were associated with the (a) application itself and (b) low motivation to participate among agents. With regards to the applications, the original application was delivered late and did not meet the specifications. ILRI worked further with the developer to bring the application up to the original specifications and make adjustments to reflect feedback from the field, but the application continues to underperform. We have learned to use local development firms whenever possible for work in which context and access is extremely important. We are also working to migrate our mobile course to an application that adheres to [offline first](#) protocols, which should help mitigate many of the issues that we are facing with respect to connectivity

Agent motivation to complete the training application was low. It was clear that gamification alone did not provide sufficient additional incentives. Feedback from agents is not entirely conclusive, but it seems that we will need to either reduce the course length substantially or employers would need to provide some additional motivation, perhaps by requiring completion by all agents. The higher participation found in the SMS courses support that lower burden approaches can elicit participation at much higher levels with very little or no compensation. We also foresee using more scalable approaches to monetary incentives, such as holding raffles for cash prizes for those that complete the course or by offering bonus commission rates for those that complete the courses.

## **Appendix A: SMS course content**

### **Opt-In**

---

#### *Agents*

##### **English**

ILRI: Dear IBLI agent. Learn more on IBLI via SMS.

You'll receive 2 SMS lessons & 2 SMS questions for 4 weeks.

ILRI will reimburse Ksh100 for airtime credit & another Ksh100 on completion.

To subscribe reply to this message with "1" to learn in English, "2" To learn in Kiswahili.

##### **Swahili**

ILRI: Kwako ajenti wa IBLI. Jiunge na mafunzo kuhusu bima hii kupitia SMS.

Utapokea SMS mbili za mafunzo haya kila wiki, kwa wiki nne. Pia utapokea maswali mawili kila wiki.

Ksh.100/= za mawasiliano zitatumwa na ILRI kupitia simu yako. Pia utapata Ksh.100/=, baada ya kukamilisha mafunzo haya.

Kujisajili, jibu ujumbe huu kwa kutuma "1"- kujifunza kwa lugha ya Kiingereza, "2" - kujifunza kwa lugha ya kiswahili.

#### *Clients*

##### **English**

ILRI: Are you an IBLI buyer? Learn more on this insurance via SMS.

You'll receive 2 SMS lessons & 2 SMS questions for 4 weeks.

ILRI will reimburse Ksh100 for airtime credit & another Ksh100 on completion.

To subscribe reply to this message with "1" to learn in English, "2" To learn in Kiswahili.

##### **Swahili**

ILRI: Je wewe ni mnunuzi wa bima ya mifugo ya IBLI? Jiunge na mafunzo kuhusu bima hii kupitia SMS.

Utapokea SMS mbili za mafunzo haya kila wiki, kwa wiki nne. Pia utapokea maswali mawili kila wiki.

Ksh.100/= za mawasiliano zitatumwa na ILRI kupitia simu yako. Pia utapata Ksh.100/=, baada ya kukamilisha mafunzo haya.

Kujisajili, jibu ujumbe huu kwa kutuma "1"- kujifunza kwa lugha ya Kiingereza, "2" - kujifunza kwa lugha ya kiswahili.

## **Auto-response**

ILRI:

#{recipient.nameOrMobile}

Ahsante kwa kujisajili. Utapokea funzo la kwanza kesho!

Thank you for choosing to participate! You will receive your first lesson tomorrow.

## **Lesson 1 and quiz 1**

---

### **English**

Lesson 1: Index based livestock insurance (IBLI), provides pastoralists with cover against forage scarcity as a result of drought.

ILRI:#{recipient.nameOrMobile}, choose the right answer to the following question by replying "Q1A" or "Q1B".

Quiz 1: What risk does IBLI provide coverage for? (Q1A) Forage scarcity. (Q1B) Livestock disease.

### **Q Auto-response**

ILRI:#{recipient.nameOrMobile}, Thank you for responding!

### **Kiswahili**

Somo la 1: Bima ya mifugo ya IBLI husaidia wafugaji wakati kuna upungufu wa lishe ya mifugo kutokana na ukame mkali.

ILRI: #{recipient.nameOrMobile}, chagua jibu sahihi kwa maswali yafuatayo kwa kutuma ujumbe "Q1A" ama "Q1B".

Quiz 1: Bima ya IBLI husaidia kuzuia hatari gani? (Q1A) Ukosefu wa lishe ya mifugo. (Q1B) Magonjwa ya mifugo.

### **Q Auto-response**

ILRI: #{recipient.nameOrMobile}, Asante kwa kujibu!

## **Lesson 2 and quiz 2**

---

### **English**

Lesson 2: IBLI insures Camels, Cows, Goats and Sheep only.

Answer the question by replying "Q2A" or "Q2B".

Which animals does IBLI cover? (Q2A) Donkeys, Camels, Goats, Sheep (Q2B) Camels, Cows, Goats, Sheep

## **Kiswahili**

Somo la 2: Bima ya IBLI inasimamia Ngamia, Ng'ombe, Mbuzi, Kondoo pekee.

Jibu swali kwa kutuma ujumbe "Q2A" ama "Q2B".

Bima ya IBLI inasimamia mifugo gani? (Q2A) Punda, Ng'ombe, Mbuzi, Kondoo (Q2B) Ngamia, Ng'ombe, Mbuzi, Kondoo

## **Lesson 3 and quiz 3**

---

### **English**

Lesson 3: IBLT contracts can be purchased from TIA agents in January/February and in August/September. Contracts provide coverage for one full year.

Answer the question by replying "Q3A" or "Q3B".

How long is the IBLI cover period? (Q3A) 1 year (Q3B) 1 season

### **Kiswahili**

Somo la 3: Bima ya mifugo hununuliwa kutoka kwa ma agenti wa Takaful kati ya mwezi wa January/February na pia Agosti/Septemba. Bima hudumu mwaka mmoja

Jibu swali kwa kutuma ujumbe "Q3A" ama "Q3B".

Bima ya IBLI hudumu kwa mda gani? "(Q3A)" Mwaka mmoja (Q3B) Msimu mmoja

## **Lesson 4 and quiz 4**

---

### **English**

Lesson 4: Premium payments are non-refundable; however, pastoralists with IBLT coverage receive indemnity payments if there is extreme drought.

Answer the question by replying "Q4A" or "Q4B".

What happens if you have IBLT coverage and there is no drought? (Q4A) I get my money back. (Q4B) No money is given back.

### **Kiswahili**

Somo la 4: Pesa za kununua bima ni gharama isiyo rudishwa. Hata hivyo, ikiwa ukame mkali utatokea, basi wafugaji waliojiandikisha hulipwa fidia.

Jibu swali kwa kutuma ujumbe "Q4A" ama "Q4B".

Ukame mkali usipotokea nini kitafanyika? (Q4A) Mfugaji atarudishiwa pesa zake (Q4B) Pesa hazitarudishwa

## **Closing**

---

### **English**

Dear \${recipient.nameOrMobile}, thank you for participating in the ILRI SMS course. As a final exercise, our automated voice response system will call you.

This system is set up to answer questions that people commonly have with regards to Index Based Livestock Takaful and to leave feedback on the course.

You will see a call from 254 740 129 806. If you are free, please answer the call. If you miss the call, flash the number back. It will then call you back.

### **Kiswahili:**

Kwa mteja mpendwa (xxx), shukrani kwa kushiriki katika masomo ya IBLI kupitia simu yako.

## **Appendix B: IVR content**

**Intro** (Swahili/English based on SMS response)

You are receiving this call because you are either an Index Based Livestock TaKaFull sales agent, or client. This is an automated service meant to provide you with information that people often request about the TaKaFull product.

Please save this number. If at any time in the future you would like to access this content again, just flash this number and we will call you back.

### **Question 1**

Press the 1 button on your phone's keypad if you would like to learn more about how indemnities are calculated for the Index Based Livestock TaKaFull.

Press the 2 button on your phone's keypad if you would like to learn more about the TaKaFull sales windows, coverage periods, or when indemnities are made.

Press the 3 button on your phone's keypad if you would like to hear about historic indemnity rates.

Press the 4 button on your phone's keypad if you would like to contact TaKaFull's county coordinator.

Press the 5 button on your phone's keypad if you would like to leave a comment about your TaKaFull agent, the TaKaFull product, or TaKaFull Insurance of Africa.

#### *Press 1*

Thank you for pressing 1 to hear more about how indemnities are calculated.

The Index Based Livestock TaKaFull products make indemnity payments when forage conditions are much worse than normal. The conditions are measured using photos that satellites take from the sky of the pasture. Those photos measure the greenness of the pastures and compare that greenness, to greenness from past seasons. The index tells us how much better or worse conditions are, this season as compared to normal for this season, and provides an indemnity rate. That rate tells us the indemnity amount that TaKaFull, owes each policy holder for each sheep, goat, cattle, and camel covered.

[[Platform goes to question 4]]

#### *Press 2*

Thank you for pressing 2 to hear more about the sales windows, coverage periods, and when indemnities are made.

TaKaFull coverage is available for purchase during two sales windows each year. The first window is in January and February, and the second window is on August and September. If you purchase a policy, your coverage lasts for 12 months, which coincides with a long rain long dry season and a short rain short dry season. Indemnities for the long rain long dry season take place in September and indemnities for the short

rain short dry take place in January. Your sales agent should reach out to you if you are owed an indemnity.

[[Platform goes to question 4]]

*Press 3*

Thank you for pressing 3 to hear about historic indemnity rates.

[[Platform goes to question 2]]

*Press 4*

Thank you for pressing 4 to get the phone number for TaKaFull's county coordinator in your area.

The county coordinator for Isiolo is, Abdiaziz, Bulle, and his phone number is 07, 24, 07, 47, 42.

The county coordinator for Marsabit is, SaaLad, and his phone number is 07, 10, 61, 54, 97.

[[Platform goes to question 4]]

*Press 5*

Thank you for pressing 5 to leave a comment about your TaKaFull agent, the TaKaFull product, or TaKaFull Insurance of Africa.

When you are done with your comments, please cut the call if you are done with this service, or press any button on your keypad if you would like to return to the main menu.

We thank you for your interest and taking time to provide feedback.

Please say your comments now.

[[Platform goes to question 3]]

## **Question 2**

If you would like to hear about historic indemnity rates in Isiolo, please press 1 on your phone's keypad.

If you would like to hear about historic indemnity rates in Marsabit, please press 2 on your phone's keypad.

*Press 1*

The payout rates for the Long Rain Long Dry 2017 season in Isiolo were as follows. Central Isiolo 58 percent. Garba Tulla 40 percent. Kinna 40 percent. Merti 40 percent. Sericho 40 percent. Oldonyiro 58 percent.

[[Platform goes to question 4]]

*Press 2*

The payout rates for the Long Rain Long Dry 2017 season in Marsabit were as follows. Central Marsabit 18 percent, Gadamoji 18 percent, Laisamis 18 percent, Loiyangalani 40 percent, Mount Kulal 18 percent, Kargi 18 percent, Maikona 18 percent, Turbi 40 percent, Dukana 40 percent, North Horr 58 percent

[[Platform goes to question 4]]

### **Question 3**

{Platform records spoken response.

[[Platform goes to question 4]]

### **Question 4**

Thank you for listening. If you would like to return to the main menu, stay on the line. If you are done with our services, please cut the call.

[[Platform goes to question 1]]

## Appendix C: Agent Survey

Enumerator Name: \_\_\_\_\_  
Participant Name: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Gender: \_\_\_\_\_  
Ethnic Group: \_\_\_\_\_

Was the agent reached? Yes / No

### Introduction and oral consent

My name is \_\_\_\_\_. I am calling on behalf of International Livestock Research Institute (ILRI) in Nairobi. We are working with Takaful Insurance Agency.

Today we would like to interview you about the Index Based Livestock Takaful product being offered in your area. Your answers will help to improve the way information and education is provided by Takaful and ILRI in your area. We expect that the interview will take approximately 15 minutes.

You may ask question now or anytime during the interview. All the information you give will be strictly anonymous. Your name will not be associated with any of your responses or given to anyone outside our project. If you would rather not answer any questions, just say so. You may opt out of this interview at any time if you wish. Your cooperation is greatly appreciated, as it will help us to understand the problems in this area. May we proceed with the interview?

**Have you obtain oral consent? Yes / No** If no, thank the participant for their time and hang up.

### IBLT Knowledge

**Have you ever heard of Index Based Livestock Insurance or Index Base Livestock Takaful?**

- a. Yes
- b. No. *[[If no, submit form]]*

**Based on your understanding of the livestock insurance, what do you think IBLT is?**

- a. Don't know
- b. Insurance product
- c. Savings product
- d. Lottery ticket
- e. Loan scheme
- f. Other specify \_\_\_\_\_

**Based on your understanding of the Index Based Takaful, what risk does Takaful cover?**  
**[[push for 1, if insists >1 list in other]]**

- a. Don't know
- b. Human illness/death/health bills
- c. Any loss of livestock
- d. Drought related forage scarcity / low forage
- e. Livestock losses due to drought
- f. Livestock losses due to disease

- g. Livestock losses due to predation
- h. Livestock losses due to cattle rustling
- i. Other specify \_\_\_\_\_

**How often does a client have to pay a premium in order to remain insured?**

- a. Don't know
- b. Once every 6 months
- c. Once every year
- d. Once every 2 years
- e. You remain insured indefinitely until compensation has been paid
- f. Other specify \_\_\_\_\_

**If a client does not receive an indemnity payout (compensation) from the livestock insurance, would they receive their premium back?**

- a. Yes
- b. No
- c. Other specify \_\_\_\_\_

**Based on your understanding of the livestock insurance, what measurements triggers an indemnity payout?**

*[Please probe for the measurement. For example, if someone responds forage availability, we want to know how that is measured.]*

- a. Don't know
- b. Number of livestock losses *[count, percentages]*
- c. Amount of rain *[mm, cm, rain gauges]*
- d. Amount of forage *[human measurements]*
- e. An index from satellites
- f. Other specify \_\_\_\_\_

**Based on your understanding of IBLI, what does the index upon which compensation is made, represent?**

- a. Don't know
- b. The number of livestock the client has lost.
- c. The predicted number of livestock the client has lost
- d. The average number of livestock lost in the region
- e. Forage in a given area around the community
- f. Forage in the county
- g. Forage in Kenya
- h. Rainfall
- i. Other specify \_\_\_\_\_

**Based on your understanding of the livestock insurance, what conditions cause indemnity payouts (compensation)?**

- a. Don't know
- b. Anytime animals are lost causing the household to suffer
- c. Failed rainy season
- d. Bad forage conditions
- e. Other specify \_\_\_\_\_

**Are you able to use the IBLIT sales transaction application?**

- a. Yes
- b. No
- c. Other specify \_\_\_\_\_

### **Confirm Administrative Data**

**Have you ever worked for or been trained by Takaful to sell insurance?**

- a. Yes
- b. No                   [[*If no, submit form*]]
- c. Other specify \_\_\_\_\_

**Were you hired by or trained by Takaful to sell insurance in January and February of 2017?**

- a. Yes
- b. No                   [[*If no, skip to section Training S2 below*]]
- c. Other specify \_\_\_\_\_

**How many contracts did you sell in January and February of 2017?**

**What is the total amount of premiums that you collected in January and February of 2017?**

**What types of outreach on IBLT did you perform to sell in January through February, 2017? (*Select Multiple*)**

- a. Individual trainings
- b. Group trainings
- c. Radio interviews/commercials
- d. Baraazas
- e. Other specify \_\_\_\_\_
- f. None

### **Training S1**

**What types of trainings did you receive during the January or February in 2017? (*select multiple*)**

- a. None
- b. Individual training from lead agent
- c. Individual training from county coordinators
- d. Individual training from Takaful staff from Nairobi
- e. Individual training from ILRI staff from Nairobi
- f. Group training from lead agent
- g. Group training from county coordinators
- h. Group training from Takaful staff from Nairobi
- i. Group training from ILRI staff from Nairobi
- j. Other specify \_\_\_\_\_

**Was January or February on 2017 your first season selling insurance for Takaful?**

- a. Yes                   [[*If no, skip to TRAINING S2 below*]]
- b. No

**In total, how many seasons have you sold insurance for Takaful? \_\_\_\_\_**

**What types of trainings have you received in the past? (select multiple)**

- a. None
- b. Individual training from lead agent
- c. Individual training from county coordinators
- d. Individual training from Takaful staff from Nairobi
- e. Individual training from ILRI staff from Nairobi
- f. Group training from lead agent
- g. Group training from county coordinators
- h. Group training from Takaful staff from Nairobi
- i. Group training from ILRI staff from Nairobi
- j. Other specify \_\_\_\_\_

## **Training S2**

**Of all the trainings that you received, which type did you find to be the most helpful?**

- a. Never received any training
- b. None
- c. Individual training from lead agent
- d. Individual training from county coordinators
- e. Individual training from Takaful staff from Nairobi
- f. Individual training from ILRI staff from Nairobi
- g. Group training from lead agent
- h. Group training from county coordinators
- i. Group training from Takaful staff from Nairobi
- j. Group training from ILRI staff from Nairobi
- k. Other specify \_\_\_\_\_

**Of all the trainings that you received, which topics did you find to be very helpful? (select multiple)**

- a. Never received any training
- b. None
- c. Shariah compliant
- d. Satellite
- e. Percentages
- f. Forage
- g. Drought
- h. Index
- i. Livestock Mortality
- j. Risk
- k. Other specify \_\_\_\_\_

**Did you use computers for training?**

- a. Never received any training
- b. Yes
- c. No
- d. Other specify \_\_\_\_\_

**Did you use phones for training?**

- a. Never received any training
- b. Yes
- c. No
- d. Other specify \_\_\_\_\_

**Who have you been trained by in the past? (select multiple)**

*[[We prefer one of the categories listed below, since we may never be able to figure out who the trainer is if they provide a simple name. So, if only a name is provided and that name is not on the list below, please probe to determine if the person was a different agent, a lead agent, or something else related to the product. If not, please use other and specify name and position/relationship]]*

- a. Never trained
- b. Duncan Khalai
- c. Diba Galgallo
- d. ILRI staff
- e. Anne Wairimu Gatuma
- f. Carol Wangeci
- g. TIA staff
- h. Friend
- i. Sub agent
- j. Lead agent
- k. County Coordinator
- l. Other, specify:

**Comments**

This study is to learn how to improve how well agents understand the insurance that they are selling.

How could we improve your training?

What part of training is most useful?

What part of training is not useful?

## Appendix D: Client Survey

Enumerator Name: \_\_\_\_\_  
Participant Name: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Gender: \_\_\_\_\_  
Ethnic Group: \_\_\_\_\_  
Was the client reached? Yes / No .

### Introduction and oral consent

My name is \_\_\_\_\_. I am calling on behalf of International Livestock Research Institute (ILRI) in Nairobi. We are working with Takaful Insurance Agency.

Today we would like to interview you about an insurance product that Takaful was selling in your area. Your answers will help to improve extension activities by Takaful and ILRI in your area. We expect that the interview will take approximately 15 minutes.

You may ask question now or anytime during the interview. All the information you give will be strictly anonymous. Your name will not be associated with any of your responses or given to anyone outside our project. If you would rather not answer any questions, just say so. You may opt out of this interview at any time if you wish. Your cooperation is greatly appreciated, as it will help us to understand the problems in this area. May we proceed with the interview?

**Have you obtain oral consent? Yes / No** If no, thank the participant for their time and hang up.

### Product Knowledge S1

**Have you heard of livestock insurance that is being sold to pastoralists in your region?**

*[[Additional information: Mifugo Maisha by APA Insurance, Index Based Livestock Takaful (IBLT) by Takaful Africa]]*

- a. No *[[probe first]]*
- b. Yes

***If no, submit form.***

### Product Knowledge S2

**Which company/product have you heard of? (multiple select)**

- a. *Mifugo Maisha by APA Insurance*
- b. *Index Based Livestock Takaful (IBLT)*
- c. Yes, but not sure company
- d. Other specify

### Product Knowledge S3

**Based on your understanding of the livestock insurance, what do you think IBLT is?**

*[[push for one, if insists more than one, select multiple]]*

- a. Don't know
- b. Insurance product
- c. Savings product
- d. Lottery ticket
- e. Loan scheme
- f. Other specify \_\_\_\_\_

**Based on your understanding of the Index Based Takaful, what risk does Takaful cover?**

- a. Don't know
- b. Human Illness/death/health bills
- c. Any loss of livestock
- d. Drought related livestock losses
- e. Drought related low forage
- f. Livestock losses due to disease
- g. Livestock losses due to predation
- h. Livestock losses due to cattle rustling
- i. Other specify \_\_\_\_\_

**How often does a client have to pay a premium in order to remain insured?**

- a. Don't know
- b. Once every 6 months
- c. Once every year
- d. Once every 2 years
- e. You remain insured indefinitely until compensation has been paid
- f. Other specify \_\_\_\_\_

**If a client does not receive an indemnity payout (compensation) from the livestock insurance, would they receive their premium back?**

- a. Yes
- b. No

**Based on your understanding of the livestock insurance, what conditions cause indemnity payouts (compensation)?**

- a. Don't know
- b. Anytime animals are lost causing the household to suffer
- c. Failed rainy season
- d. Bad forage conditions
- e. Other specify \_\_\_\_\_

**Based on your understanding of the livestock insurance, what measurements triggers an indemnity payout?**

*[Please probe for the measurement. For example, if someone responds forage availability, we want to know how that is measured.]*

- a. Don't know
- b. Number of livestock losses *[count, percentages]*
- c. Amount of rain *[mm, cm, rain gauges]*
- d. Amount of forage *[human measurements]*
- e. An index from satellites
- f. Other specify\_\_\_\_\_

**Based on your understanding of IBLI, what does the index upon which compensation is made, represent?**

- a. Don't know
- b. The number of livestock the client has lost.
- c. The predicted number of livestock the client has lost
- d. The average number of livestock lost in the region
- e. Forage in a given area around the community
- f. Forage in the county
- g. Forage in Kenya
- h. Rainfall
- i. Other specify\_\_\_\_\_

**Education and Outreach S1**

**What type of training did you receive about insurance in January or February on 2017?**

- a. None
- b. Individual training from lead agent
- c. Individual training from county coordinators
- d. Individual training from Takaful staff from Nairobi
- e. Individual training from APA staff from Nairobi
- f. Individual training from IRLI staff from Nairobi
- g. Individual training but does not know who from
- h. Group training from lead agent
- i. Group training from county coordinators
- j. Group training from Takaful staff from Nairobi
- k. Group training from APA staff from Nairobi
- l. Group training from IRLI staff from Nairobi
- m. Group training but does not know who from
- n. Other specify\_\_\_\_\_

**Was January or February on 2017 your first season hearing about index based livestock insurance/ Takaful?**

- a. Yes *[[If yes, skip to Education and Outreach S3]]*
- b. No

## **Education and Outreach S2**

**When did you first hear about it? \_\_\_\_\_**

**What types of trainings have you received in the past?**

- a. None
- b. Individual training from lead agent
- c. Individual training from county coordinators
- d. Individual training from Takaful staff from Nairobi
- e. Individual training from APA staff from Nairobi
- f. Individual training from IRLI staff from Nairobi
- g. Individual training but does not know who from
- h. Group training from lead agent
- i. Group training from county coordinators
- j. Group training from Takaful staff from Nairobi
- k. Group training from APA staff from Nairobi
- l. Group training from IRLI staff from Nairobi
- m. Group training but does not know who from
- n. Other specify \_\_\_\_\_

## **Education and Outreach S3**

**Of all the trainings that you received, which type did you find to be the most helpful?**

- a. None
- b. Individual training from lead agent
- c. Individual training from county coordinators
- d. Individual training from Takaful staff from Nairobi
- e. Individual training from APA staff from Nairobi
- f. Individual training from IRLI staff from Nairobi
- g. Individual training but does not know who from
- h. Group training from lead agent
- i. Group training from county coordinators
- j. Group training from Takaful staff from Nairobi
- k. Group training from APA staff from Nairobi
- l. Group training from IRLI staff from Nairobi
- m. Group training but does not know who from
- n. Other specify \_\_\_\_\_

**Of all the trainings that you received, which topics did you find to be the most helpful?**

- a. None
- b. Shariah compliant
- c. Satellite
- d. Percentages
- e. Forage

- f. Drought
- g. Index
- h. Coping strategies
- i. Other specify \_\_\_\_\_

**How could we improve outreach and training?**

- a. More agents
- b. Agents that know more
- c. Locally based agents/closer agents
- d. More radio
- e. More trainings
- f. Other specify \_\_\_\_\_

**What part of training is not useful?: Short answer**

**Administrative Data S1**

**Did you buy insurance in January and February of 2017?**

- a. Yes
- b. No *[[probe, but then submit if no]]*
- c. I don't know *[[probe, but then submit if no]]*

**Administrative Data S2**

**What is the total amount of coverage that you purchased in January and February of 2017?**

**Camel:**

**Cattle:**

**Sheep & Goats:**

**Premiums Paid (KSH):**

## References

- Asabere, N.Y., 2013. Benefits and challenges of mobile learning implementation: Story of developing nations. *International Journal of Computer Applications*, 73(1)
- Blumel C. 2014, *Trends in ICTs for Youth Workforce Development*, TechLab Solution Paper Series #1, FHI 360
- De Bock, O. and Gelade, W., 2012. The demand for microinsurance: A literature review. *ILO Microinsurance Innovation Facility Research Paper*, (26).
- Dror, I., Dalal, A., & Matul, M. 2012, Emerging practices in consumer education on risk management and insurance, in C. Churchill & M. Matul (Eds.), *Protecting the poor: A microinsurance compendium Volume II*, ILO, Geneva
- Elabed, G. and Carter, M.R., 2015. Compound-risk aversion, ambiguity and the willingness to pay for microinsurance. *Journal of Economic Behavior & Organization*, 118, pp.150-166.
- GSMA 2015, *The Mobile Economy: Sub-Saharan Africa*, GSMA
- Guarnaschelli, S., Cassar, G. and Dalal, A., 2012. *Selling more, selling better: A microinsurance sales force development study*. ILO.
- Jensen, N., and Barrett, C., 2016. Agricultural index insurance for development. *Applied Economic Perspectives and Policy*, 39(2), pp.199-219.
- Jensen, N., Barrett, C., and Mude, A., 2016. Index Insurance Quality and Basis Risk: Evidence from Northern Kenya. *American Journal of Agricultural Economics*, 98(5): 1450–1469.
- Jensen, N., Barrett, C., and Mude, A., 2017. Index Insurance and Cash Transfers: A Comparative Analysis from Northern Kenya. *Journal of Development Economics*, 129, 14-28.
- Jensen, N.D., Mude, A. and Barrett, C.B., 2014. How basis risk and spatiotemporal adverse selection influence demand for index insurance: Evidence from northern Kenya.
- Jensen, N., Ikegami, M. and Mude, A., 2016. Integrating social protection strategies for improved impact: A comparative evaluation of cash transfers and index insurance in Kenya. *The Geneva Papers on Risk and Insurance-Issues and Practice*, pp.1-33.
- Karlan, D., Osei, R., Osei-Akoto, I. and Udry, C., 2014. Agricultural decisions after relaxing credit and risk constraints. *The Quarterly Journal of Economics*, 129(2), pp.597-652.
- Kelebeng, K., Mlalazi, R., Gosekwang, K., Phalaagae, P., Mangwa, T., Kebonang, T. and Morapedi, T., 2016. Learners-Mobile Interaction: African Substance and Style. In *Handbook of Research on Human Social Interaction in the Age of Mobile Devices* (pp. 96-110). IGI Global.

Lyons, Elizabeth. *The Impact of Job-Specific Training on Short-Term Worker Performance: Evidence from a Field Experiment*. No. 00572. The Field Experiments Website, 2016.

McPeak, J., Chantarat, S. and Mude, A., 2010. Explaining index-based livestock insurance to pastoralists. *Agricultural Finance Review*, 70(3), pp.333-352.

Patt, A., Suarez, P. and Hess, U., 2010. How do small-holder farmers understand insurance, and how much do they want it? Evidence from Africa. *Global Environmental Change*, 20(1), pp.153-161