“Support agencies promoting weather based insurance schemes for smallholder farmers” in Uganda and Zambia

Final Report
This Final Report was submitted to the

Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN)

By

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Programme Sponsors:
**LIST OF ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>AARMS</td>
<td>African Agriculture Risk Management Services</td>
</tr>
<tr>
<td>Coop</td>
<td>Cooperative</td>
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<tr>
<td>RCRD</td>
<td>Foundation for Community Relief and Development</td>
</tr>
<tr>
<td>MAAIF</td>
<td>Ministry of Agriculture, Animal Industry and Fisheries</td>
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<tr>
<td>SACCO</td>
<td>Savings and Credit cooperative Organisation</td>
</tr>
<tr>
<td>NASECO</td>
<td>Nalweyo Seed Company</td>
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<tr>
<td>UGAFODE</td>
<td>Uganda Agency for Development</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<tr>
<td>IBIS</td>
<td>Interactive Business Information Systems</td>
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<tr>
<td>ILRI</td>
<td>International Livestock Research Institute</td>
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<tr>
<td>AT Uganda</td>
<td>Appropriate Technology Uganda</td>
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<td>DFID</td>
<td>Department of International Development</td>
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<td>WII</td>
<td>Weather Index Insurance</td>
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<td>UCA</td>
<td>Uganda Cooperative Alliance</td>
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<tr>
<td>SMS</td>
<td>Short Message Services</td>
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<tr>
<td>ZNFU</td>
<td>Zambia National Farmers Union</td>
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<tr>
<td>NUSFAZ</td>
<td>National Union of Small scale Farmers of Zambia</td>
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<tr>
<td>FANRPAN</td>
<td>Food Agriculture and Natural Resources Policy Analysis Network</td>
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A. SUMMARY

Climate Change is tangibly affecting the population of Sub-Saharan Africa, particularly for the poorer and rural communities. Small-scale farmers in Africa are especially vulnerable to the effects of Climate Change, which includes erratic rainfall and extreme events, such as droughts, dry spells, late-onset of rain, unseasonal rains and flooding. In the last 10 years, droughts have affected southern and eastern Africa multiple times to different degrees. Along with Climate Change, farmers face many other risks and challenges, such as access to finance, access to good quality inputs, the price of fuel and access to markets for selling the crop, lack of irrigation and other infrastructure in place etc.

It has been observed in many countries that the presence of ‘risk-proofing’ tools, such as insurance, can reduce certain risks in the value-chain. Consequently this can provide a livelihood protection for the farmer and also catalyze access to finance, inputs and other components of the value-chain. However, agriculture insurance for small-scale farmers (in particular) in Africa is extremely difficult to implement, from demand, supply and environmental perspectives. Weather-index insurance products are arguably the most feasible and suitable agriculture insurance product for small-scale farmers in sub-Saharan Africa. Over the years, many pilots (usually with donor-support) have been undertaken in weather index insurance in Africa, Asia and South America. It is however rare to find many examples of pilots, which have been successful in scaling up and hence in becoming self-sustainable beyond the duration of the pilot.

The objective of this activity was to identify 6 agencies in Zambia and Uganda, which are either offering weather-index insurance or have good potential to do the same. This activity falls under Specific Objective 2 of the COMESA-EAC-SADC project. The output of Phase 1 of the project is included in this report. In Phase 1, we analyze the landscape for agriculture and weather-index insurance in Zambia, Uganda and Swaziland. For Swaziland, we provide a profile of the environment, in which Weather Index Insurance can operate. However, since no agencies are currently offering weather-index insurance and due to the relatively low potential for such a product in Swaziland, we have not analysed agencies in detail, in addition to the country-level profile done. For Zambia and Uganda, we analyse in detail the work done via different agencies. We analyse the strengths and weaknesses of these agencies and summarise the key lessons learnt, plans for the future and also potential interventions to enable the agencies to achieve scale and to become self-sustainable in their operations.

Agencies for weather-index insurance include both insurance companies and distribution channels (or aggregators). As with other micro-insurance products, it is crucial to have effective distribution channels in order to have an outreach of tens of thousands of small-scale farmers, which is essential for a scheme to be self-sustainable and commercially viable. Hence, we study both insurance companies as well as distribution channels, such as farmer organisations and
agri-businesses as suitable distribution channels for weather-index insurance, based on their track record, experiences to date and potential for scaling up.

Following on from Phase 1, we identified different agencies, who were either implementing or had high potential to implement weather-index insurance, particularly in Zambia and Uganda. It was also identified that targeted training and capacity building is required in order to support these agencies in order to enable them to either implement weather-index insurance products for the first time or to enable them to scale-up existing weather-index insurance products. In addition, a scoping study for Swaziland was also undertaken (as detailed in the Phase 1 report). As part of Phase 2, Risk Shield Consultants, with support from FANRPAN, organized 4 training workshops in Zambia and 3 workshops in Uganda for different agencies who are currently offering weather index insurance and also for those who have high potential for implementing weather index insurance. Risk Shield conducted training and capacity building for key local stakeholders including insurance companies and potential distribution channels. Training was organized to focus on these different constituent groups and was delivered in separate sessions for these groups.

As part of Phase 3, Risk Shield presents the outputs of the interventions undertaken in Phase 2 for each country. These include training materials, training reports and guidelines and policy briefs. Also, we describe the impact of the interventions in Phase 2. In particular, the interventions resulted in the development of weather index insurance products and the launch of products in Zambia in the 2015-16 season, with a current outreach of approximately 380,000 people through approximately 60,000 farming households throughout the country.

1.0 ZAMBIA

PHASE 1
In Zambia, Weather Index Insurance (WII) products have been implemented since 2013. The main agencies and distribution channels of WII include the following:

1) Insurance companies: There are currently 3-4 insurance companies, of which 2 have already underwritten WII products in Zambia. The main insurance companies for underwriting WII in Zambia are Mayfair Insurance and Focus Insurance.

2) Agri-businesses: Agri-businesses who are farm input suppliers and have contract farming operations are crucial for increasing outreach of WII products as they often work with thousands of farmers. The main agri-businesses for delivery of WII in Zambia are Cargill, NWK Agri-services and Pioneer Seeds.

3) Farmer organizations - There are 2-3 major farmer organizations in Zambia, which have significantly large outreach of farmers. There is good potential of leveraging on farmer organizations for WII scale-up in Zambia. The main farmer organizations are Zambia National Farmer’s Union (ZNFU), National Union of Small-holder Farmers Association of Zambia (NUSFAZ) and Zambia Cooperative Federation (ZCF).
4) Financial institutions - Banks and Microfinance Institutions (MFIs) are efficient
distribution channels for WII. The key institutions are Bank ABC, NatSave, Zanaco and
First Merchant Bank Limited (FMB).

An initial assessment of the following distribution channels and insurance companies who are
promoting WII for smallholder farmers has been conducted. Distribution channels are integral
to the success of a WII project. Experience has shown that the best distribution channels are
those that are trusted by farmers and have the ability to transact cash. These channels help in
aggregating the farmers and carrying out an awareness campaign to make farmers aware of
agricultural risks and the risk transfer mechanisms that could be used to mitigate them. The
rational for technical assistance to distribution channels is that it would contribute to public
awareness of risk.

The key agencies assessed in Zambia, as of 15th October 2015, are summarized below:

1. **Mayfair Company** - Mayfair Insurance embarked on a project to provide weather index
   insurance (WII) to small-scale farmers in Zambia in 2014. With assistance from Risk
   Shield Consultants, Mayfair developed WII product and successfully ran a pilot with
   Zambia National Farmers Union (ZNFU) for their farmers under the Lima credit scheme.
   Under this scheme small-scale farmers (typically with land-size of 0.5-2 hectares) could
   access the credit required for investing in their farming both for consumption and sales.
   The main crops covered here were Maize and Soya. The pilot was implemented in two
districts of Mpongwe and Lufyanyama covering 1,008 farmers.

   **Key Lessons Learnt**
   a) WII is a cost-effective route of insuring small-scale to emergent farmers as the
      expenses for policy administration, individual underwriting and loss verification are
      significantly reduced or eliminated completely.
   b) The WII product out-performed the traditional indemnity based crop insurance,
      which the aggregator (ZNFU) was also simultaneously operating, particularly in
      terms of transparency of the process and the speed of the payment event and
      amount being known to all parties.
   c) The underlying satellite data is capturing weather events (such as dry spells and
      droughts) accurately in Central Zambia and the Copperbelt.

   **Interventions required for Mayfair**
   Mayfair would require support in all the technical areas of implementing WII. These
   include actuarial analysis, pricing, product design and development, actuarial modeling,
data processing and management. Mayfair would also need training on developing
enhanced satellite-based WII as well as bespoke products for other crops in addition to
maize and soya, which they insured in 2014 - 2015 season, as per market demand.
Training on developing crop insurance products that combine weather-index with other
types of features such as area yield and multi-peril cover is very important so that products can be tailored to address the needs of the farmers.

2. **Zambia National Farmers Union (ZNFU)**- ZNFU is a national organization with countrywide membership, which represents the agriculture industry including smallholder farmers who are the target beneficiaries for WII. ZNFU work with approximately 200,000 farmers in Zambia. ZNFU membership is currently categorized into District Farmers’ Associations, which makes it easier to reach out to farmers in their own localities. ZNFU has functional structures in place hence making it easier to work within these established structures. ZNFU has the ability to provide education and training to farmers through its existing structures and projects that they currently manage. Given the above, ZNFU meets the criteria of suitable distribution channel.

**Key Lessons Learnt**
The key lessons learnt by ZNFU are the following:

1) WII has the potential to offer significantly speedier claim payouts due to the automated payout mechanism based on the weather data, which is available on a live basis.

2) The data requirements for WII are different to traditional indemnity insurance as the payouts are made for locations rather than to individual farmers. Consequently ZNFU needs to have a better understanding of the actual loss experience of individual farmers for an optimum distribution of the payouts made to locations.

3) It is possible to insure the value of the expected revenue instead of only cost of production, based on the indexed insurance approach.

**Intervention for ZNFU**
ZNFU would like its head office and field staff to be trained on the basics of weather index insurance. This will enable them to train farmers more effectively so that the farmers understand how an index product works. ZNFU would also like to scale-up the WII product for the 2015-16 season due to the advantages of WII in terms of speed of claims payment and transparency of the process.

3. **Focus Insurance**- Focus Insurance Company has 2 seasons of experience with weather index insurance, having embarked on a project to provide WII to small-scale farmers in Zambia in 2013-2014. They partnered with NWK Agriculture Services, a contract-farming organization in Zambia, to provide WII to small-scale farmers in eastern, central and southern Zambia. With the assistance of international consultants, Focus developed WII and successfully implemented a pilot with NWK Agriculture Services for their cotton contract-farmers. More than 10,000 NWK farmers have been insured to date. In the 2014-2015 season, Focus was able to renew with the existing distribution channel and scale-up, in terms of geographical locations, and was able to partner with new distribution channels, including Pioneer Seeds, a seed input supplier.
Key Lessons learnt
There is good scope for implementing and scaling up WII in Zambia. The underlying satellite-based weather data is accurately capturing weather events in different parts of Zambia and for different crops. The client demand for WII has also increased significantly over time.

Focus also sees opportunity in the bundling of products e.g. WII with Life insurance and also for non-insurance services, such as loans, seeds, other farming inputs etc.

Focus sees the scope of integrating insurance in nationwide agriculture insurance schemes, as part of the food security programs implemented by the Government of Zambia.

Intervention for Focus
Focus would need training for the technical areas of weather index insurance (and other insurance products) for smallholder farmers. This includes training on data analytics, product design and pricing, assessing the scope for and implementing other agricultural insurance products such as area yield index insurance and indemnity products, in response to client demand and needs. Focus would also need capacity building through training workshops in areas including marketing, claims processing, monitoring and evaluation. Weather index insurance will be the primary focus of the training workshops. However, in addition, there is demand to build capacity for other hybrid products, combining weather index and other types of insurance, such as indemnity and area yield.

4. NWK Agriculture Services- NWK Agriculture Services is a cotton merchandising company and one of the large ginners operating in Zambia. NWK supports small-scale cotton farmers through contract farming by providing cotton inputs on credit, technical support and marketing. Currently NWK is working with farmers in 4 provinces, namely, Southern province, Lusaka, Central province and Eastern province, and 9 regions. In addition to supporting farmers with input cost for cotton, NWK also buys soya beans and maize from farmers. Currently NWK has approximately 100,000 active cotton-growing farmers on their contract scheme. Their highest number was 130,000 farmers farming in 223,000 hectares of land. The number of farmers tends to increase mostly following a high cotton price season and decreases when the preceding season’s cotton price was low. NWK staff stands at 450 in 50 locations.

Key Lessons Learnt
NWK has seen that there is a demand among farmers to purchase the product on a voluntary basis. Over 2 seasons, over 10,000 farmers have bought the product on a purely voluntary basis. NWK has also observed a potentially beneficial impact on reduced side-selling of the crop to other buyers, due to the insurance product. Side-selling of the crop is often observed in contract farming arrangements, whereby farmers may violate a contract and sell their crop to other buyers at the end of the season. This causes significant problems and losses for the original contract farming buyer, who may be unable to recover their credit and also be unable to buy the target amount of commodities as per their plan. However through use of insurance as an incentive for farmers to deliver to the buyer, it was observed that the extent of side-selling may have reduced as a result of the insurance product.

**Interventions for NWK**

Weather Index Insurance is a relatively new and complex product that most clients have little or no familiarity with. Because of the technical nature of the product and the specific conditions under which there is a payable claim it is important that staff associated with the distribution channel be trained on these products. In addition, these distribution channels’ trained staff will be training the farmers to create awareness and sensitization.

NWK will need training workshops for its field staff and if possible their lead farmers as well. The purpose of these workshops will be to:
- Educate on weather index insurance;
- Explain benefits of WII i.e. protecting agricultural loan portfolios against weather-related risk; and
- To equip staff to deal confidently with internal and external clients on any issues relating to WII, and be able to create and disseminate clear messages about WII.

5. **Pioneer Seeds**- Pioneer DuPont Zambia Put Ltd is a seed company, a subsidiary of DuPont Pioneer the world’s biggest seed company with Head Office in Des Moines, Iowa USA. DuPont Pioneer in turn is wholly owned by DuPont a diversified giant that is registered on the New York Stock Exchange. Pioneer DuPont Zambia is a private company legally incorporated according to the Zambian laws 2008. In Africa Pioneer operations are located in Zambia, South Africa, Zimbabwe, Kenya, Ethiopia, and Egypt and currently distribute and sell hybrid seed in Tanzania and Malawi with expansions earmarked for Angola, Mozambique and Uganda. Pioneer ran a pilot on weather index insurance in the last season where 400 farmers were insured in the district of Mumbwa and Mpongwe. Pioneer used WII as a sales promoter.

**Key Lessons Learnt**
The WII product can be a valuable value-add for farmers and there is scope for packaging the product with the retail seed inputs. WII can also reduce credit risk, which is why Pioneer is considering packaging insurance with inputs given on credit.

Interventions for Pioneer
Like the other aggregators, Pioneer would like to have its field staff trained on weather index insurance in order to have a better understanding of how the product works.

PHASE 2
In sub-Saharan Africa, Zambia is relatively mature in the weather index insurance development and requires support to scale-up the number of policies they are selling per season. Four training workshops were held as follows;
   i) 2 field training workshops for NWK field staff in Monze and Choma districts of the Southern province – 24th of November 2015;
   ii) 1 capacity building workshop for different current and prospective participants in weather index insurance -27th of November 2015;
   iii) 1 technical training workshop for Mayfair insurance staff- 28th of November 2015

Types of organizations that attended the training

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agribusiness</td>
<td>13</td>
</tr>
<tr>
<td>Farmer Associations</td>
<td>7</td>
</tr>
<tr>
<td>Crop Loss Adjuster</td>
<td>1</td>
</tr>
<tr>
<td>Agriculture Finance Consultants</td>
<td>3</td>
</tr>
<tr>
<td>Insurance</td>
<td>19</td>
</tr>
<tr>
<td>Insurance Brokers</td>
<td>1</td>
</tr>
<tr>
<td>Input Supplier</td>
<td>1</td>
</tr>
<tr>
<td>NGO</td>
<td>2</td>
</tr>
<tr>
<td>WII Consultants</td>
<td>2</td>
</tr>
<tr>
<td>FANRPAN</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>50</td>
</tr>
</tbody>
</table>

DEMOGRAPHIC composition of participants

<table>
<thead>
<tr>
<th>GENDER</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>43</td>
<td>86%</td>
</tr>
<tr>
<td>FEMALE</td>
<td>7</td>
<td>14%</td>
</tr>
</tbody>
</table>

1.1 Training of Trainers for NWK field staff
NWK is an agribusiness that participates in an outgrower scheme with more than 100,000 farmers in its books. Most of the farmers are contracted to grow mostly cotton but also maize and soya. These are mostly small-scale farmers with no more than two hectares of land although there are also a few emergent farmers who get support on farm equipment in
addition to input support. NWK gives the farmers inputs on credit and also acts as an off-taker for the farmers’ yield.

NWK has been offering insurance since 2013-2014 agricultural season to its farmers on a voluntary basis in a few locations. To date a total of approximately 10,000 farmers have been insured under the NWK contract farming operation. One gap that had been identified during the feasibility study was the lack of understanding of the product by both field staff and farmers. No matter how good a product is, unless there is a clear understanding by the people involved in its marketing, it’s bound to fail or have limited number of people opting for it.

With the support from FANRPAN we were able to train 13 field staff trainers who are NWK field staff to ensure adequate knowledge of and implementation of both weather index and life insurance. We realize that if farmers do not understand the product then they may miss an opportunity to enroll in insurance, and NWK may miss an opportunity to offer additional products and services to their contracted farmers.

Image 1: Training of field-staff (Training of Trainers) in Monze, Zambia

The objectives, among others, for the workshops, were to;

1) Raise awareness amongst the NWK field staff on the availability of weather index and life insurance and their benefits.
2) Develop a pool of local NWK field staff who will train the rest of the lead farmers and other farmers in their areas.
3) Encourage NWK to enroll farmers on both weather index and life insurance.
4) Explain the benefit of using weather index insurance to hedge agricultural loan portfolios against weather risks.

We trained a group of field staff as Trainers of Trainers (TOTs) who will work with the farmers contracted by NWK to educate them and their beneficiaries on the availability and benefits of agricultural insurance. We also developed a brief (2-page) product brochure in English and this will be translated soon into two main local languages, Chewa and Tonga, spoken in the main farming regions to enable quick and easy reference to the product descriptions. The brochures were distributed at each of the workshops held.

Image 2: Training of field-staff (Training of Trainers) in Monze, Zambia

At the end of the training, participants were able to understand and explain the following;
- What is weather index and life insurance?
- Who is eligible for insurance and what is the enrollment process?
- How much does it cost to get insured?
- What are the benefits?
• When does the cover start and when does it end? The coverage period.
• Claim settlement process. How does one make a claim?
• How are claims calculated?
• Answers to Frequently asked questions.

Image 3: Training of field-staff (Training of Trainers) in Choma, Zambia

1.2 Workshop for current and prospective participants in weather index insurance

1.2.1 Overview
A half day capacity building training workshop was conducted on 27th November where 20 participants attended including the facilitators. Four of the participants were representatives of Mayfair and Focus insurance, the two main insurance companies that are currently underwriting weather index insurance. Mayfair has so far had one season of experience on underwriting weather index insurance. Last season, Mayfair insured farmers who are members of Zambia National Farmers Union (ZNFU) in two districts of the Copperbelt province, Lufwanyama and Mpongwe. Focus insurance has been involved in weather index insurance since its inception two seasons ago and has insured NWK Agri Services, a contract farming operation and Pioneer Dupont a seed input supplier.

The other participants were from Pioneer Dupont, National Union of Small scale Farmers of Zambia (NUSFAZ). NUSFAZ is a farmer organization with more than 20,000 members across the country. It’s a fairly new farmer organization that was legally registered in 2014 to represent exclusively smallholder farmers. NUSFAZ is an organisation with no experience in weather index insurance but is eager to access insurance and credit from the banks. They approached Mayfair during the 2014-15 agricultural season seeking to partner with Mayfair when they had applied for a loan from Stanbic for their members but failed to access the loan as the bank needed more time to assess them. It was a great opportunity for them to attend the workshop and learn more on different options of agricultural insurance specifically about weather index insurance.
The objective of the workshop was to build capacity within the local market in order to encourage more participation in the agricultural insurance market. This in turn, could lead to more local insurers becoming willing, and to some extent capable, of underwriting and maintaining agricultural insurance products in Zambia. Consequently, the workshop provided a general overview as well as technical details, which insurers and clients need to know in order to facilitate an appetite for underwriting and take-up of these products.

Image 4: Capacity building for different stakeholders in Lusaka, Zambia

1.2.2 Content

Participants were briefed about Zambia's experience of implementing weather index insurance, which included a discussion on the strengths and weaknesses of the existing program. The difference between weather index insurance and other types of agricultural insurance was clearly defined. Furthermore the following topics were covered in greater detail:

- Role of insurance in agricultural risk management
- Lessons learnt and challenges
- Different types of agricultural insurance products
- Weather index insurance
- Distribution channels and business case
- Data requirements
• Product design and pricing
• Claims process and other operational areas
• Summary

1.2.3 Key Issues Raised
A number of key points were raised in the workshop, which included:

1. The need for sufficient time and resources for client education and awareness to build client demand.
2. The option for weather index insurance products to cover the expected yield and not just inputs so that the insurance is not perceived as only covering the interest of the lender or aggregator.
3. The product should be appropriately priced at a level that farmers are willing to pay.
4. Insurers were concerned of basis risk. Their main concern was that if contracts are mismatched with farmers’ experience and/or the agricultural season, and farmers suffer losses but due to basis risk, no payout is triggered, there is potential for reputational risk.
5. There were discussions about including loss verification in addition to the automatic trigger before making final payouts as per the weather index insurance contract.

1.3 Mayfair insurance staff workshop
A product awareness session was hosted for Mayfair Insurance company's key front and back office staff. The purpose of this training was to build staff's confidence when dealing with internal and external clients about weather index insurance. In addition, the workshop included specific topics that were applicable for the various departments of Mayfair including underwriting, marketing and claims. Mayfair staff was also trained on the technical aspects of weather index insurance, including product development, pricing and claims calculation and payment.

The workshop was a full day capacity building workshop attended by 15 Mayfair staff working in different departments. The management team including the Managing director, Finance Manager, Business Development Manager, Claims Manager and Underwriting Manager attended the workshop. The following insurance departments were represented; Business development, Underwriting, Finance, Claims and Administration as well as one country branch. The objective of the workshop was to build capacity within Mayfair in order to encourage more active participation in the agriculture insurance market. This in turn, would lead to more willingness and capacity of underwriting and maintaining agricultural insurance products in Zambia. Consequently, the workshop provided a general overview as well as technical details that is important for Mayfair staff to know in order to facilitate an appetite for underwriting these products.
1.3.1 Content
Participants were briefed about Zambia’s experience of implementing weather index insurance, which included a discussion on the strengths and weaknesses of the existing program. The difference between weather index insurance and other types of agricultural insurance was clearly defined. Furthermore, the following topics were covered in greater detail:

- Risk Management in agriculture;
- Learning and challenges from Zambia and other countries;
- Product types;
- Weather index insurance;
- Distribution models & stakeholders’ involvement;
- Data requirements;
- Underwriting & product design;
- Pricing;
- Marketing;
- Policy document;
- Reinsurance strategy;
- Claims processing and monitoring;
PHASE 3
Following on from the 4 training workshops (as described above) in Phase 2, the outcome of these interventions was that Risk Shield Consultants and the two local insurers, Mayfair and Focus entered into a partnership to cultivate a more favourable environment for weather based index insurance in Zambia and develop a local capacity to advance and manage weather index products. To date, great progress has been made with significant scaling up of the product offering.

Risk Shield has been working as the program consultants offering actuarial and operational support. Some series of capacity building and product awareness trainings took place with both Mayfair and Focus insurance professionals and other stakeholders and distribution channel staff trained in weather index insurance. This was made possible from the support from FANRPAN.

Consequently over 60,000 farming households are insured against drought, dry spells and other adverse weather events in Zambia in this current 2015/2016 farming season. This implies that approximately 380,000 people in rural-households have access to drought insurance and over 300,000 people also have access to Funeral insurance, through the coverage of the 60,000 farming households in the current season.

This significant scale-up has been facilitated by a collaborative partnership between the Risk Shield Consultants local partners, Mayfair Insurance Company Zambia Limited and Focus General Insurance Limited. The products have been developed with the support of Risk Shield Consultants Limited.

This significant scale up was achieved by securing partnerships with a range of distribution channels including a contract farming operation, a farmer organisation, an international agency and by linking the insurance products with the Government's Farmer Input Support Programme (FISP) ‘e-voucher’ pilot programme. In total, approximately 58,800 small-scale farmers and 80 medium-scale farmers have been insured, with an effective outreach to over 60,000 farming households. An economic value of approximately 70 million ZWK has been insured. Additionally, over 50,000 farmers are being covered with life insurance via a product, which provides packaged weather-index and Funeral insurance coverage, together with farm inputs on credit.

Partnerships with key distribution channels were secured and weather index insurance was rolled out through four different distribution channels. The distribution channels included;
Zambia National Farmers’ Union (ZNFU), NWK Agri-Services, ILO supported projects and the government e-voucher FISP program.

<table>
<thead>
<tr>
<th>AGGREGATOR</th>
<th>DISTRICT</th>
<th>INSURER</th>
<th>CROP</th>
<th>NO. OF FARMERS</th>
<th>SUM INSURED</th>
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<td>Kipiri, Monze, Kaoma, Nyimba, Petauke, Kabwe,</td>
<td>Mayfair</td>
<td>Maize</td>
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<td>Winds of change</td>
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<td>Various</td>
<td>Mayfair</td>
<td>Cottnon, Soya</td>
<td>80</td>
<td>23 650 000</td>
</tr>
<tr>
<td>ZNFU</td>
<td>Kafue, Chongwe, Chibombo, Namwala, Itzhi-tezhi, Mafinga, Mpika, Kawambwa</td>
<td>Focus</td>
<td>Maize</td>
<td>1196</td>
<td>6 871 468</td>
</tr>
<tr>
<td>NWK Agri-Services (Small scale)</td>
<td>Various</td>
<td>Focus</td>
<td>Cotton</td>
<td>49947</td>
<td>14 984 100</td>
</tr>
<tr>
<td>NWK Agri-Services (Small scale)</td>
<td>Various</td>
<td>Focus</td>
<td>Soya</td>
<td>1880</td>
<td>940 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>58800</td>
<td>69 254 098</td>
</tr>
</tbody>
</table>

A detailed description on the product offering for each of the clients is below.

**ZNFU**

This is now the second season that ZNFU has experienced weather indexed insurance after having done the initial pilot in three districts of Mpongwe, Kalulushi and Lufwanyama in the Copper belt. They had a good experience in their first season and this current season has been a significant scale up to cover 4,687 farmers in fourteen districts across the country. Both Mayfair and Focus covered ZNFU portfolio. The crops being insured under ZNFU are maize and soya.

**ILO supported soya beans farming**

The ILO is supporting youths growing soya beans in four districts namely, Kasama, Chibombo, Chongwe and Mugwi. These farmers are contracted by different out grower schemes to grow soya beans and have the cost of inputs insured. The tree off takers of the soya beans are Winds of Change, Manyika Development and Victor Series Production. A total of 660 youths growing farmers are insured under this program.

**FISP e-voucher program**

Mayfair insured 1,546 farmers on a pilot basis on government’s FISP e voucher program in Choma district with the hope of extending it to all the districts next year after the experience of the current season when all parties would have had the proof of concept. This year the
insurance was tested in Choma district and was offered on a purely voluntary basis. A lot of awareness and sensitization was done in the district with the support of government extension officers. A total of 13 workshops were done targeting all the camp committee members in the district.

During the current 2015/2016 agriculture season, a total of 759,000 small-scale farmers were supported with agricultural inputs under the conventional FISP while 241,000 small-scale farmers were targeted under the electronic voucher system in 13 districts, bringing the total number of beneficiaries to 1,000,000 farmers.

There is great potential for scaling up considering the number of farmers under the FISP program but a lot of resources would be required for awareness and sensitization should the insurance be extended to all FISP beneficiaries.

**NWK Agri-Services medium scale farmers**

Though NWK has been insuring small scale farmers now for three years, this is the first time that they have extended this weather index insurance to medium scale farmers. These are 80 farmers cultivating more than 45 hectares of land and are fairly mechanised. These farmers are spread across all the regions where NWK has operations.

**NWK Agri-Services small-scale farmers**

NWK has been offering insurance to their smallholder farmers since the 2013/14 season and this marks the third season in a row since the initial pilot. There has been a significant scale up from the initial 7,000 farmers insured in the inception season to the current 51,827 farmers in the current season insuring soya and cotton. What is unique with the NWK product is that it’s a hybrid product that combines weather indexed insurance and life insurance. The maximum payable under weather index insurance for cotton is K300 per hectare and K500 per hectare for soya and the premium payable is K30 and K45 respectively. The benefit payable under life insurance is K1,000 per hectare pack and only the contracted farmer is insured.

The weather indexed insurance product provides drought cover, with dynamic triggers set depending on the area risk exposure. Additional cover that comes as a part of this product is life cover for the contracted farmers. The unique part of the product is that it is bundled with life cover, which caters for other needs of the farmers and so offers a good coverage for both production and livelihood risks.

NWK like in the previous seasons, pre finances the premium on behalf of the farmers. The support available with financial solutions for premium payment enhances the attractiveness of the product. The efforts to provide other insurance products like life cover; along with weather insurance is a good step towards improving the client value proposition. Linking weather insurance with other products like hospitalisation cash will also be explored. Pre-financing facility of premium by NWK is a good facilitative tool that helps the farmers in the purchase of
the product. The NWK Network of more than 50 Shed and regional Staff members works with 80000 farmers and provides a good mechanism for outreach to the farmers. It also helps in controlling the insurance costs since they are in regular touch with the customers in any case and are trusted and insurance is an additional service that they are providing. The “personal” touch for the farmers through the strong NWK structure as distribution channel is a major advantage. It helps in outreach with the lead farmers and field staff being located in close proximity to the customers and the products being marketed by people who are known by customers. It is also helpful in providing a personalised and decentralised service since, the Shed manager and the distributors are from the local community.

The NWK model has been a perfect fit for a success story in offering weather index insurance. It has worked well because weather index insurance has been grafted onto a system where other vital parts are already reasonably functioning and the role of the coverage is to improve efficiency and unlock further potential. Under NWK, weather index insurance is integrated within a coordinated supply chain where there is an established linkage between input provision, commodity sales, extension services, technical advice and finance.

We have learnt that providing insurance through such an aggregator carries a number of possible advantages. Selling through groups reduces the costs of retailing insurance: training can be organised with group leaders; and group leaders can subsequently train members, assemble a list of demands and disseminate information on insurance enrolment and claims payout to members. Training group leaders in the insurance product also has additional advantages: they are often more literate and numerate than other members of the group so may be able to understand the products quickly in a training session and then communicate the key concepts effectively to other members. And by vouching for the insurance products they can increase trust in the insurance products among other members of the group. This has been the mainstay of the NWK product offering.

**Completed Project Activities**

As of 31st January 2015, the following activities have been completed:

1. **Product renewal and additional client Identified and insured**
   Appropriate clients for a weather index and life product for smallholder farmers were short-listed and due diligence was carried out. Cargill, in addition to NWK was selected as the most suitable client for this product in order to reach thousands of farmers in rural Zambia. Preliminary work was done on the Cargill product but could not launch this season but there is a possibility of launching with them next season. NWK renewed this time for the third time in a row. Also, to renew insurance cover was ZNFU and the new clients were the FISP program of the ministry of agriculture and the ILO supported youth soya bean farming.

2. **Capacity gap analysis**
A capacity gap analysis was done among the agencies, which are currently offering weather index insurance and those interested in offering weather index insurance. This scoping exercise guided in the formulation of the training outline for each of the different agencies.

3. Data Collection
Weather and crop data was collected and analysed from various sources. These included rainfall data, crop yield data, feedback from current aggregators, farmers, agronomists and insurers for product development and product review and pricing.

4. Capacity Building and Training
Training workshops were organised for various stakeholders. These were done by the international and the local consultant. Stakeholders included agribusinesses, insurers, farmers union, input suppliers, agriculture finance experts, loss adjusters etc.

5. Stakeholder Meetings
Meetings were carried out with the different stakeholders over a three-month period to assess the need and specifications of the product. Risk Shield had a meeting with the Minister of Agriculture to explore ways of working with the ministry’s FISP program and this eventually resulted in the running a pilot under the government program.

6. Finalising Structures with Clients
The final structure of the product was finalised in consultation with different aggregators, farmers, insurance companies and using best know insurance practice.

7. Farmer Feedback and Training
There was considerable interaction with field staff and farmers on the field to understand their needs, their key risks, and the use of insurance to manage these risks. Also, the experience of bad seasons and feedback on the product was collected. Field staff’s training sessions were carried out in all the locations, where the product is being offered under NWK Agri-Services. These focused mostly on the field staff due to a lack of funding to travel to all sheds and meet with all the farmers.

8. Satellite Data Modelling
Satellite rainfall estimation data was used to develop, design and price the products. A suitable satellite database was used and appropriate models were built to enable use of the satellite data.

9. Actuarial Product Design
Suitable products were designed for the various locations and distribution channels, taking into account local weather conditions, experience of bad seasons and the impact on pricing, among other factors.

10. Actuarial Pricing
Products were priced on an actuarially fair basis with a competitive basis used to maximise expected client value.

11. Underwriting Arrangements
Risk Shield finalised all underwriting arrangements using an optimum combination of insurers and reinsurers.

12. Marketing Literature Production
Risk Shield developed a series of marketing and training materials, which were printed and tested with the farmers and then revised, based on farmer feedback.

13. Contract Documentation
All contracts and reinsurance treaties were developed by Risk Shield.

14. Policy Wording
The final policy wording was developed by Risk Shield and agreed with the insurers and distribution channels.

15. Product Launch
The products were launched using the combination of both the weather index and life elements and in some cases a combination of weather indexed insurance and the conventional multi-peril crop insurance.

16. Confirmation of Volumes
The final volumes were collected and confirmed with different distribution channels, premiums paid and communicated to the insurers.

17. Claims Monitoring
A process was set up for monitoring weather index claims based on the satellite data, on a real time basis. Risk Shield is currently monitoring the performance of the products.

2.0 UGANDA

PHASE 1
In Uganda Weather Index Insurance is being implemented through insurance companies that have organized themselves into an insurance pool, called Kungula Partnership. These insurance companies include: Lion Assurance and APA insurance. The kind of weather index insurance offered is using Relative Evapotranspiration (RE) index to assess the loss or damage, which was developed by Delft Netherlands.

In Uganda, a big challenge is getting accurate meteorological data; therefore, all efforts to develop weather index insurance are centered on satellite data. Another challenge is the lack of
qualified personnel to model index insurance products. The pilots so far were funded by development agencies and relied on expertise from the re-insurance companies.

Uganda is faced with a number of weather risks, notably drought, excess rainfall flooding and all these result into crop pests and diseases. Drought is the risk most farmers would want covered and it’s one of the main risks that cause the highest number of Agricultural losses in Uganda. The Government of Uganda with their budgetary provision of ugx 5B as a premium subsidy for agricultural insurance will aim largely at supporting the cover of risks that are impossible to stop or avoid, for example, excessive rain, fire, flooding, drought, epidemics, crop pests and diseases, among others.

Some of the key agencies with high potential for being involved in WII are summarized below:

1. **Uganda Cooperative Alliance (UCA)**- UCA is an umbrella organization of cooperatives registered in 1961 with the aim of promoting the economic and social interests of cooperatives in Uganda. It was formed for the purposes of promoting, advocating and building the capacities of all types of co-operatives in the country (primary societies, district and national unions). UCA works with about 100 farmers’ cooperatives, amongst other cooperatives and unions. UCA provides assistance to these farmers’ cooperatives in accessing various services like insurance, better quality seeds, fertilizers etc. There are more than 1 million members who are working in the Agriculture Sector. The levels of cooperative bodies within UCA are described below:

   (i) **Primary Cooperative Societies (PCS)**
   PCS is the base of the Cooperative system. Primary Societies are formed by a minimum of 30 individuals who engage in production of a commodity or service. These are usually formed at parish / village levels.

   (ii) **Area Cooperative Enterprises (ACEs)**
   ACE is a secondary co-operative formed at a sub-county level by 5 – 10 PCS’s. ACEs are usually formed at a sub-county level and deal with a maximum of 3 agricultural products. The role of ACE is to sell members’ produce in bulk and to find the best market for their members’ produce in return for a commission that is pre-determined by the members. The ACE also adds value to their members’ produce by storing, cleaning, grading, sorting, processing and packaging where possible. The ACE is fully owned by the PCS.

   (iii) **Saving and Credit Cooperatives (SACCOs)**
   SACCOs serves as the financial arm of the PCS and ACE. The members of the PCS and ACEs also own SACCO. SACCO provides financial services as and when needed by its members.
National Agricultural Co-operative Unions

National Agri Co-op Unions are commodity-specific national cooperative unions that focus on and bring together all related commodities under one umbrella, which cannot be done by the ACEs. The ACEs are location specific and can deal with a maximum of 3 enterprises. The national unions are envisaged to take over many of the roles that UCA is playing in the development of ACEs and primary societies. These activities include organizing input procurement, agro-processing, securing loan funds for the ACEs and their members, developing new services, organizing extension services and lobbying and advocacy. With such focus on commodities at a national level, the various value chains can easily be developed.

Their Work Strategy involves:

a. Integrated approach where services are organized in cooperatives in such a way that members have full service packages (or a complete combination of services that farmers need) by integrating financial services, production support services and, value addition and marketing services. Such an approach brings satisfaction to the members without compromising good governance within the individual cooperative organizations.

b. Value chains approach where UCA believes that it is only through participation in value chains that farmers can maximize their incomes.

c. Creation of partnerships amongst cooperatives, and between cooperatives and other institutions from the private sector, development agencies and government agencies.

Agricultural Insurance experience

UCA has been searching for an agricultural insurance product for its members. They approached many insurance Companies but were not able to obtain a satisfactory response. Like many other farming organizations, they did not believe in Relative Evapotranspiration. Other agricultural insurance products in the market like multi-peril were not appropriate for UCA’s farmers given their size and needs.

Interventions for UCA

There is a need to develop stronger understanding of the various types of agriculture insurance, including weather index and area-yield index insurance, which may be applicable for their members. There is also a need to develop a product, which the farmers understand, instead of the existing complex product. Capacity building, marketing and bespoke product development would be key for leveraging on UCA to reach a large number of small-scale farmers in Uganda.
2. **UAP Insurance Company** - UAP is the 2nd largest insurer in Uganda and the first foreign underwriter in Southern Sudan. UAP also has presence in Rwanda, Tanzania and the DRC. UAP’s origins can be traced back to over 80 years.

**Agricultural insurance experience**
UAP was a member of the Kungula Partnership for a period of two years. The Kungula product’s aim was to provide weather index insurance to the farmers in Uganda. However, UAP withdrew from this partnership to pursue its own vision for agricultural insurance in Uganda. UAP has taken initiative in developing agricultural insurance product for Uganda. Currently it is offering indemnity-based multi-peril crop insurance, livestock insurance, and index insurance products for crop and livestock.

In 2012, UAP started offering livestock insurance by partnering with Swiss Contact, Heifer International and Pride Micro Finance, with the sole purpose of increasing financial options available to smallholder farmers in the dairy value chain. The product has now expanded and provides coverage to commercial farmers, smallholder farmers as well as cooperatives. UAP’s current agricultural insurance portfolio includes coverage for crops, livestock, bloodstock, aquaculture, forests and greenhouses through both indemnity and index-based products. UAP also provides a packaged product that offers life insurance along with agricultural insurance. The key products are described below:

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Interest Covered</th>
<th>Risks Covered</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indemnity Cover</td>
<td>Named Peril</td>
<td>Sugar Cane</td>
<td>Drought, excess rainfall, Frost, windstorm, hail, pests, diseases and fire.</td>
<td>3% - 6% at 75% yield guarantee</td>
</tr>
<tr>
<td></td>
<td>Multi-Peril</td>
<td>Cereals, Tea and Coffee</td>
<td>Drought, excess rainfall, Frost, windstorm, hail, pests, diseases and fire.</td>
<td>3% - 6% at 75% yield guarantee</td>
</tr>
<tr>
<td>Mortality Cover</td>
<td>Livestock</td>
<td>Bloodstock</td>
<td>Accidental Death through lightening, Snake bites, injuries, fire, poison, calving complications, emergency slaughter on veterinary advise, epidemics, diseases of terminal nature and theft.</td>
<td>5.5% - 6.5%</td>
</tr>
<tr>
<td></td>
<td>Multi-Peril</td>
<td>Forest cover</td>
<td>Fire, Lightening, Plane Crash, fire and uncontrollable pests and diseases</td>
<td>3% - 4%</td>
</tr>
<tr>
<td></td>
<td>Multi-Peril</td>
<td>Aquaculture</td>
<td>Diseases, Poisoning, pests and theft</td>
<td>4% - 5%</td>
</tr>
<tr>
<td></td>
<td>Multi-Peril</td>
<td>Greenhouse</td>
<td>Damage to the structure due to fire, lightening, hail, impact damage and irrigation equipment against damage</td>
<td>2.5% - 3%</td>
</tr>
</tbody>
</table>

**Lessons learnt**
Main challenges faced so far with the implementation of WII are:

a) With Kungula, the RE Index is difficult to understand not only for the farmers, but even for the insurers. Yet, there have been no efforts to provide tailored training. Therefore there is no drive to scale-up this product.

b) Lack of in-house capacity to develop and market products. UAP have received many inquiries about index-based products. UAP believes that there is sufficient market demand for well-designed and marketable products.

Interventions for UAP

UAP would require actuarial support to develop and design weather index insurance products. In addition, UAP would need assistance with promoting and marketing these products to various aggregators and potential distribution channels. UAP is currently looking for technical assistance to be able to offer index based insurance covers specifically for drought, excess rainfall and flooding. Their index product has been code named ‘UAP Agri-sure’ and they are already in discussions with banks, cooperatives and farmer organizations about potential partnership for distribution.

3. Kilimo Trust- is an independent organization working on agriculture for development across the East Africa Community (EAC) Region – in Burundi, Kenya, Rwanda, Tanzania, and Uganda – and more recently in the new Republic of South Sudan. They promote regional solutions to local problems and their main aim is to make agricultural markets work better in order to reduce poverty. Kilimo Trust comes with a commercial mind-set and market understanding of agricultural development within the EAC Region.

Kilimo Trust has many years of operational experience in the region, which has enabled them to implement a number of projects. They have strong technical and institutional capacity along with a committed Board and Management Team. Kilimo Trust is committed to supporting the people of East African Community (EAC) Region, to achieve market-based solutions to food and nutrition security. Therefore, the core business of the Trust is to support the transformation of food and nutrition security in the EAC Region away from high-risk subsistence farming into lower risk trade-based systems. To facilitate this, the Trust is a coordinating HUB for regional markets’ development programs providing regional solutions to local problems in ways that enhance security of incomes, food, and nutrition in the region. The ambition is to achieve a trade-based food security system in which all consumers including those who are in farming consume processed and stored foods. Food processing will reduce on the wastage and increase the quantity of food available for sale and consumption.

Kilimo Trust executes its work, in collaboration with a number of organizations, which include the producers and the buyers of produce. Given the subsistence nature of agriculture in Uganda, farmers find themselves unable to buy inputs and plough the fields at the beginning of a season. There is immense need for credit to facilitate this,
which is offered by a few financial institutions. Sometimes buyers of produce lend the money with an understanding that the cost would be deducted from the end supply. Because of this linkage they have realized that there is a serious need for insurance, especially weather-based since bad weather is the biggest threat to farmers. The loss as a result of bad weather has an impact on the entire value chain. Why is this important? Because, a lack of specialization in the production of food commodities by smallholders within EAC, dominated by subsistence farming, encourage the production of food commodities in unsuitable agro-ecological zones, leading to perpetuation of hunger and poverty.

**Agricultural Insurance experience**

Kilimo Trust currently has no project with weather-based insurance because of a previous experience and lack of in-house capacity especially on monitoring the weather-based insurance contracts. Kilimo Trust is still keen in building capacity for all their production related projects. The organization tried to implement weather-related loan guarantees, which did not work too well, and when the farmers experienced losses, the loan amounts could not be repaid. These projects were with Kapchorwa Farmers Association (KACOFA) and with Agra in Tanzania.

**Lessons learnt**

*Kilimo Trust* believes that no agricultural production loans and commodity financing involving procurement from smallholder farmers should be granted unless effective insurance has been procured. One of the key challenges experienced with the weather-based insurance in Uganda is that there is no capacity to develop it. Also most insurance companies in Uganda have tried to implement agricultural insurance, including WII, with much financial support from NGOs. This has led to collapse of agricultural insurance as soon as the funding ends from the NGOs.

Below are lessons learnt about weather index insurance from the KT-AGRA Agribusiness Loans Schemes with Stanbic Bank.

<table>
<thead>
<tr>
<th>Lessons</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Rainfall Index Insurance was arbitrarily being driven by the Bank rather than the insurance companies themselves resulting in haphazard policies that lacked full terms and conditions as expected of a general contract in addition to not reflecting the uniqueness of such a policy.</td>
<td>a) Insurance should be demand driven to instigate ownership and accountability. &lt;br&gt;b) Insurance policies, just like all contracts, should be drawn in adherence to the laws of contracts. As the minimum requirement for the Scheme, an insurance policy template for the kind of facilities offered by the Bank developed and approved by the Scheme Parties with the help of experts in weather insurance, for providers to adopt to their specific requirements.</td>
</tr>
<tr>
<td>2) MSMEs (Micro Small and Medium</td>
<td>a) Governance of Micro Small and Medium</td>
</tr>
</tbody>
</table>
Lessons | Recommendations
--- | ---
Enterprises) governance was not as strong as to hold the insurer accountable | Enterprises (MSMEs) should be strengthened so that the management understands the terms of contracts, if they are to abide by them and seek recourse in case of any loss. Also, it should be clear from the start who pays for what and the extent of compensation should the risks covered occur.

3) Limited number of weather instruments such as rain gauges and limited knowledge of farmers of how to record and report weather data. | b) There should be enough weather instruments installed to collect the right weather information in a timely manner.  

c) A clear procedure for data collection, analysis and assessment of insurance claims be developed and adopted by the Scheme parties. This way, it becomes possible for mentors and capacity support organizations to support the farmers in adopting weather insurance and in ensuring all the requirements by the contract partners are met. This helps protect the interests of farmers as users/consumers and helps in the demand for the service in the long run.

4) Non-involvement of farmers in the WII contract negotiations resulting to them not knowing what percentage of the loans was covered and lack of accountability on the same. The MSMEs, who are parties to the insurance contracts did not even have copies of the policies. | a) There should be full involvement of MSMEs (producer organizations) through their leaders in negotiations of the WII policies and there should be transparency in what is covered.

d) It is important to align the effect of a WII with the beginning of a season to ensure that all the risks that may occur in the course of a season are entirely covered.  
e) In the case of Agribusiness Loans Scheme, the policies were signed at the middle of the season even after some of them had been affected by floods and later on by drought.

Interventions for Kilimo Trust
There is a need to build capacity within Kilimo Trust and to assess which farmers among can be targeted for a pilot WII program. There is also a need to provide a set of marketing tools, which Kilimo Trust can use to train trainers and consequently increase financial literacy and insurance
related education among farmers. Bespoke product development for both WII and other types of crop insurance products would also be required.

**PHASE 2**
During Phase 1, when we discussed with some organizations about their experience so far, they expressed optimism at the success of the index insurance under the pool. It was therefore important to have pre-training discussions with organizations to learn more about the organizations, their current efforts and their plans for weather index insurance.

2.1 Pre and Post Workshop Meetings

**UAP meeting**
In 2013, UAP was in partnership with the insurance pool called Kungula. 8 insurance companies were part of the pool that was headed by Lion Assurance. The coverage was for maize and livestock. In early 2014, UAP pulled out of this insurance pool. Currently UAP offers multi-peril insurance with the guidance of their counterpart in Kenya, and their reinsurer Swiss Re. Their biggest client is a fish firm.

UAP offers the multi-peril insurance through distribution channels, mostly financial institutions. The insurance is mandatory for loan borrowers of these financial institutions. Premium is about 4-5% of sum insured. For crop insurance the coverage is only for one crop for one group of farmers in one location hence loss verification is manageable. But the challenge is to verify losses on the ground therefore the insurer is dependent on feedback from the distribution channel.

In 2015, crop portfolio seems to be declining because the insurance covers small-scale farmers with about 0.25 acre of land and the crop insurance price is slightly higher than insurance for livestock, poultry or diary.

UAP expressed interest in bundling health insurance with agricultural insurance with the idea of offering a more comprehensive cover to clients

**Goldstar meeting**
Goldstar has a good relationship with FIT, an agricultural services firm. FIT has a lot of information and data about farmers and farming in Uganda.

Goldstar participated in a recent bid for Dutch subsidy for more subsistence farmers to semi-commercial farmers. Uganda lost this bid to Kenya. Goldstar now has extensive data and materials on agriculture as they had done substantial preparatory work for this bid.

Goldstar is very eager to start weather index insurance soon as long as the premiums are affordable and consulting fees are manageable.

**Uganda Cooperative Alliance (UCA) meeting**
UCA is an apex organization for cooperatives involved in agriculture. UCA’s work includes advocacy, education, mobilizing resources, advising government on cooperative policies, mentor coop leaders, coming up with new products/services for cooperatives, coming up with new types of coops, new farming practices, linking farmers to different service providers. In Uganda, the demand is higher for farming seasonal crops. UCA links farmers to credit, inputs, and business partners.

UCA mentioned the following challenges of agricultural insurance:

1) Lack of supply of insurance products,
2) Concept of insurance has not taken off in Uganda,
3) The cost of insurance may be too high,
4) Appropriate regulation is required.

UCA is happy to play a role in the claims verification process and insurance education. One of their queries was on farmers' accessibility to weather data. One option discussed was sending sms with weather data to the farmers' mobiles. UCA would also be able to present to the Ugandan government the case for subsidizing insurance.

**FINCA meeting**

FINCA is an international microfinance institution with branches in several countries. FINCA has 7 branches in Uganda with agriculture loans. Their agriculture portfolio is about UGX 10 billion. They have 18 agriculture officers who have a curriculum for training the staff on the ground. Portfolio risk is less than 5%. 80% of agriculture portfolio is mainly in livestock. For crop loans, farmers mainly receive loans for rice and maize.

FINCA has an ABI guarantee of insuring up to UGX 4 billion of their agriculture portfolio by paying 1% of sum insured as premium but the guarantee only provides life insurance. ABI only pays 50% of loan default amount for agriculture loans against the premium.

FINCA mentioned that one of the biggest challenge is that agricultural insurance is expensive and monitoring costs are high.

**Meeting with Nile Breweries Ltd**

Nile Breweries obtains 15,000 tons of sorghum from 20,000 farmers, and also barley from 4,800 farmers. The brewery provides seeds during two seasons in a year. The challenging part is growing barley, which is scaling-up at a very slow pace. The barley areas were badly hit by drought in 2015 that caused a loss of about 2,000 tons from the expected 3,000 tons of barley in 2015.

5kg of seeds are required for growing sorghum in 1 acre of land and 15kg of barley seeds are required per acre of land. Barley is a very sensitive crop hence a lot of herbicides are required.
The cost of barley inputs per acre of land is about 560,000 to 1 million shillings. Farmers from the eastern region of Uganda contribute 60% of total crop required by the brewery.

Areas where there are 2 seasons of rain, losses can be recovered in the next season in case of drought. But areas where there is only one season, it becomes a complete loss for that year. Crop season lasts about 3 months where April to July is one season and August / September to December is the second season.

The brewery provides interest-free credit to the farmers. They also subsidize seeds by 50%. The brewery's costs are for land preparation, seeds, and chemicals required. The price paid to farmers is 1,000 shillings per kg of crop that results to about 260,000 shillings as revenue for the farmers. The yield for barley is about 700kg per acre. The risk is that sometimes farmers end up selling the inputs received from the brewery to make money.

Farmers are managed by third party operators that are associations of farmers, hence, farmers are not directly managed by the brewery itself.

An agricultural insurance pilot could be done for a block in eastern Uganda. Nile Breweries has also installed weather stations near farmers but in secure areas such as in partnership with research institutes.

2.2 Workshops

2.2.1 Objectives of the workshops
In the Scoping Phase, discussions were held with a number of partners to understand and gauge their interest in developing the Weather index insurance market in Uganda. A number of reasons were given as to why the organizations were not implementing weather index insurance and they included:

a) Lack of capacity to model the indexed products
b) Lack of understanding on what indexed products are - how they are developed, how they are sold to their members, how they can tell that a product is paying out or not
c) Lack of trust among the insurance companies that have attempted to offer these products
d) Lack of knowledge on the existence of such products
e) Mistrust of the data to be used in modeling these products – among others.

The Objectives of these workshops therefore were to:

Insurance Companies
i) Give general information on the Weather Indexed product and how they are developed
ii) Sharing experiences on what is happening in other parts of the world in the Indexed products sphere
iii) Share Alternative sources of data for developing these products
iv) Alley their fears and demystifying the complexity of the products in developing and selling them.

Distribution Channels
i) To give them a general appreciation of the indexed products, how they are developed and what they cover and don’t cover
ii) General benefits of the products vis-a-vis other Agriculture Insurance products
iii) Their role in developing the Indexed insurance products
iv) And information on how they can access these products and sell them to their clients.

Farmer organizations
i) An understanding of weather index insurance products and top line information on how they are developed - in a bid to restore their trust in the products – that they are scientifically developed using factual data than mere guess work
ii) Make them understand their role in the product development and management

2.2.2 Organizations Invited and the Reasons for Inviting them
Three separate invitations were sent out for the three different workshops.

Workshop 1 – 8th December – Insurance Companies
This first workshop was for Insurance Companies. The Companies that were invited were based on their interest in the development and growth of weather index insurance in Uganda, and their willingness to commit resources to this cause. The following Organizations were invited

I) UAP Insurance
II) Gold star Insurance
III) Lion Assurance
IV) APA Insurance

The numbers invited in these organizations were limited to 8 participants per organization.

Workshop 2 – 9th December, 2015 – Distribution Channels
In this workshop, different kinds of organizations that support and aggregate farmers were invited. They included the Banks, the Contract farming organizations, NGOs, and others. Below are the organizations that were invited.

<p>| AARMS-African Agriculture Risk Management Services |
| ABl trust-Agribusiness Initiative Trust |
| AT Uganda-Appropriate Technology Uganda |
| DFID-Department for International Development |
| EKN-Netherlands Embassy |
| Farm Africa |
| GIZ- |
| IBIS |
| ILRI-International Livestock Research Institute |
| KOICA-Korea International Cooperation Agency |</p>
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAAIF</td>
<td>Ministry of Agriculture Animal Industries and Fisheries</td>
</tr>
<tr>
<td>MFPED</td>
<td>Ministry of Finance Planning and Economic Development</td>
</tr>
<tr>
<td>MUZARDI</td>
<td>Mukono-Zonal Agriculture Research Development Institute-Mukono</td>
</tr>
<tr>
<td>NPA</td>
<td>National Planning Authority</td>
</tr>
<tr>
<td>PMA</td>
<td>Plan for the Modernisation of Agriculture</td>
</tr>
<tr>
<td>Sasakawa</td>
<td>Global 2000</td>
</tr>
<tr>
<td>TechnoServe</td>
<td></td>
</tr>
<tr>
<td>TRIAS</td>
<td></td>
</tr>
<tr>
<td>UCE</td>
<td>Uganda Commodity Exchange</td>
</tr>
<tr>
<td>UEPB</td>
<td>Uganda Export Promotion Board</td>
</tr>
<tr>
<td>Uganda Agribusiness Alliance</td>
<td></td>
</tr>
<tr>
<td>UIA</td>
<td>Uganda Investment Authority</td>
</tr>
<tr>
<td>University of East Anglia</td>
<td></td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>World Bank</td>
<td></td>
</tr>
</tbody>
</table>

*Image 6: 1st workshop in Kampala, Uganda*
Workshop 3: – 10th December, 2015 – Farmer organizations and Cooperatives, Seed Companies

This Workshop was for Farmers and farmer representatives, Seed Companies and any other persons or organizations that were interested in learning about weather index insurance and how it works.

Below are the organizations that were invited.

- Busia Produce dealers
- Uganda Cooperative Alliance (Leaders of all their farmer cooperatives)
- Kitumbi Area Coop Enterprise
- Farmers Centre Ltd
- Foundation for Comm. Releif & Development (RCRD)
- Farmers Centre Ltd
- MAAIF - Busia Border Post
- Bukusu Yetana ACE
- Farmers Centre Ltd
- Bukoola Chemical Industries Ltd
- Katerera ACE
- NASECO 1996
- Equator Seeds Ltd
- Ayalape-Agro-Gulu
- Ocean Group Traders (U) Ltd
- Simlaw Seeds Co. (U) Ltd
- Rewa Grains Mukono
- Busia Cross Border Traders Association
- UGAFODE Microfinance Ltd
- Equator Seeds Ltd
- Pe Yero Rice Milers Ltd
- Pajule Farmers’ Marketing Cooperative Society Ltd
- Upland Rice Millers Ltd
- Victoria Seeds Ltd
- Uganda Development Bank
- Latyeng’ Farmers’ Cooperative Society
2.2.3 Attendance and Demographics

In the three workshops, despite the numbers that were invited, the attendance rate was relatively low.

The relatively low attendance was attributed to the numerous end of year activities in different organizations that could not allow them release their staff for trainings and for farmers it was lack of transport and accommodation money for bringing them from different parts of the country to Kampala. Much as the facilitation was later approved for a few of them, communication reached them too late to travel.

Types of organizations that attended the training

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSURANCE COMPANIES</td>
<td>8</td>
</tr>
<tr>
<td>Contract farming</td>
<td>1</td>
</tr>
<tr>
<td>Cooperatives</td>
<td>8</td>
</tr>
<tr>
<td>Banks</td>
<td>1</td>
</tr>
<tr>
<td>NGO</td>
<td>1</td>
</tr>
<tr>
<td>Agribusiness</td>
<td>2</td>
</tr>
</tbody>
</table>
**DEMOGRAPHIC composition of participants**

<table>
<thead>
<tr>
<th>GENDER</th>
<th>NO</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>13</td>
<td>49</td>
</tr>
<tr>
<td>FEMALE</td>
<td>14</td>
<td>51</td>
</tr>
</tbody>
</table>

**2.2.4 Topics Covered**

In these workshops, a number of topics were covered for all participants, but the details given on each topic varied from group to group. The topics included:

1. Risk Management in Agriculture;
2. Lessons Learnt and Challenges from Zambia and other countries;
3. Different types of Agricultural Insurance products;
4. Weather Index Insurance;
5. Distribution Channels and Business Case;
6. Data Requirements;
7. Product Design, Pricing;
8. Claims Process and other Operational areas;

The Insurance Companies were more interested in product design and pricing while the distribution channels were keen on understanding how you can make a business case on Index Insurance and selling the product to their various farmers.

**2.2.5 Key Feedback and Discussion during the workshop**

**Workshop with insurers**

Insurers preferred the hybrid option and weather option. Hybrid option is more attractive because it covers more perils and not only weather. Although weather index insurance is cheaper so may be more attractive to farmers, they still prefer to have a more comprehensive cover. Weather is appropriate for large-scale farmers because they are able to manage most of the other perils but weather is beyond their control. Farmers may not be using best practices (may not be using fertilizer etc.) and may underperform in which case area yield index is not appropriate.

Challenges are low literacy so explaining basis risk would be difficult. Also there is a lack of trust in insurers hence if there is no payout due to basis risk, then farmers will further mistrust the insurers. Small-scale farmers have low productivity hence paying the premium would be a challenge. Another challenge is obtaining accurate weather data.

Biggest perils are drought and excessive rainfall, but pest and disease are also quite common.
With indemnity type products, average settlement time is 2 months and there is too much back and forth before final settlement. Agronomists are hired for loss assessment, which is very expensive. For index insurance, ease of claims settlement will make it popular.

Banks have historical farmers’ data, but had no insurance companies to work with to provide weather index insurance products to their clients.

**Workshop with distribution channels**

Most of the people who attended this workshop agree that there is a huge need for Weather index Insurance. They also mentioned that the mains risks for farmers are financial risks, price risks, weather risks (excess rainfall and drought), weather risks due to variability of seasons / climate change, transport risks, political risks, yield variation risks, seed failure, agriculture inputs are counterfeit, heavy post-harvest losses due to many reasons (price, transportation, storage etc.), low productivity, unpredictability of weather so sometimes farmers plant early and the crop fails. Extreme weather conditions are not so much a risk. Uganda has warehouse schemes that are supposed to protect farmers against price variation, but, this is not yet fully functional.

Some of the reasons for loan default is that often farmers fail to understand the terms of their loan, the production stages are not aligned with loan repayment schedule. For e.g. farmers receive proceeds from sales at the end of a season but loan repayments are to be made every 2 weeks. Also the loan products are inappropriate with high interest rates and short repayment period. Farmers also sometimes divert the proceeds instead of repaying the loan.

Agricultural insurance challenges are that there are no products in the market except for pilot products, and are funded by donors which are not sustainable. Farmers are not aware agricultural insurance exists. They also pointed out that there is a lot of mistrust between the farmers and insurance companies and so there is a serious need to build the confidence of farmers to participate in this type of insurance scheme.

Microinsurance providers don’t know how to package products, and they do not give any kind of information to their clients. There are informal insurance mechanisms such as pooling so commercial insurance has to compete with this.

Bundling insurance with credit will make farmers confident if there is a crop failure. There is less fear amongst farmers if bundled with access to market. If weather index insurance is bundled with agri inputs, it will encourage farmers to take-up insurance. Crop buyers can also provide insurance to farmers. But it shouldn’t be mandatory with credit as farmers should understand the value of insurance and then subscribe.
A homogeneous group of farmers is easier to cover under insurance. Farmers’ database is already there with MFIs, Farmer unions etc.

For raising awareness, in the 1st phase insurance should be discussed at community meetings, for e.g. through a question and answer session. Since it’s a new concept the product should be discussed through face-to-face interactions. In the 2nd phase, local radio stations (large area coverage) using local languages and with a Q&A session as well could be used for increasing insurance literacy.

Workshop with Farmer representatives
Farmer representatives expressed concern about the premiums, i.e., if insurance (6% premium) is bundled with credit (24% - 27% interest) then it becomes too expensive. But the insurance premium in isolation is fair and manageable.

Many Ugandans are interested in farming but don’t want to do it themselves so they want to send money to relatives to farm. There may be an opportunity here to link insurance with mobile banking.
They expressed the need to carry out grass-root sensitization by training the extension workers first and giving them materials to use for training the farmers.

Most respondents believe that weather index insurance, despite the discussed challenges, is the best mode of insurance for smallholder farmers. They also believe that agricultural Insurance can best be distributed through farmer organizations, followed by Banks and Microfinance institutions.

PHASE 3
As an outcome of the meetings and workshops done in Phase 2, a number of organizations expressed interest in engaging their farmers and organizations they work with to support weather index insurance. After understanding the basics on weather index insurance, participants agreed that they will consider including weather index insurance in their annual programs for implementation.

Two insurance companies expressed serious interest in learning more and committing resources to continue to train their staff. They even agreed to carry out a pilot in 2016. UCA together with its networks requested for a simplified training information sheet that could be used to train its farmers at the grassroot levels in order to prepare for the 2016 September crop season.

A field visit to Nile Breweries yielded a promise to discuss the concept with senior management team to carry out a pilot in Kween District for Barley farmers they work with. The key determinant factor though was the price, which they believe if high may not make financial sense for them.

AT Uganda and partners requested for a detailed discussion with the insurance companies and other interested partners in carrying out a project in 2016 where they will be able to learn more before scaling up.

A number of organizations like ABI trust had tried to support the development of indexed products. They encouraged the Insurance Companies to form a risk-sharing pool (or a co-insurance arrangement) to be able to collectively sell the products as they develop their individual capacities. However, this risk pooling arrangement is currently suffering from some drawbacks as some organizations felt marginalized and left out, others did not believe in the underlying data source, which was a Relative Evapo-transpiration data product.

During the trainings, a number of people from different organizations and expressed need for mentorship in the process of developing and marketing Weather Index Insurance Products until they are able to stand on their own.
A follow up on some of the organizations that expressed interest has resulted in positive feedback. Although no policies have been sold or products designed yet, there is a lot of hope and satisfaction that those with whom discussions are ongoing will commit to relevant policies. So far, discussions are ongoing with three organizations:

1. **University of East Anglia**
   The University is interested in promoting WII especially with in the VSLA setting. The concept is that many farmers are members of savings groups and WII could be offered to the members of such a group, for example as follows:
   - Every individual pays towards the premium when they make their regular contributions to the group.
   - When the index falls below a threshold, payment is triggered. The pay-out by the insurance company could be in two parts:
     - Part 1 is a pay-out to individuals, recognizing that everybody has suffered from the weather shock.
     - Part 2 is a pay-out to the group: the collective savings are boosted. This is in recognition of the fact that not everybody will have suffered to the same extent.
   - When the shock has occurred and pay-out has taken place, individuals apply for emergency loans to the VSLA in the usual way: they take out loans with the small interest rate that members are eligible for.
   - All of this can be bundled with credit for inputs and market access, along the lines sketched above.

Only members with a real need will apply for such a loan because they still carry an interest rate though smaller than the usual interest on other loans. The WII thus takes advantage of the fact that the groups to which it would be offered already have an excellent mechanism for sharing basis risk that screens out those who have not suffered from it. At the same time, the group can now deal with risks that it could not deal with without WII: when, say, a drought occurs and members have not taken out a WII product, many members would want an emergency loan, and the collective savings would not be enough for all these loans. The WII both ensures that fewer members need an emergency loan (they get individual pay-outs) and that the funds available for emergency loans are boosted (for the purpose of sharing basis risk).

2. **Gold Star Insurance Company**
   Gold Star Insurance is a Ugandan owned Insurance Company that wants to venture into agriculture Insurance. They have expressed their desire to partner with Risk Shield to provide them with technical support in developing and pricing as well as monitoring the product as they learn in the process.

Gold Star is seriously marketing the WII product, they on some occasions engage the staff of risk shield especially where they have a pitch to high profile clients and they are proposing to begin cover with at least one big client – Iran Agro in this season of March. The pilot product would take into account 1,000 hectares, with a total sum insured value of over 1 million USD.
3. Nile Breweries Ltd
After the visit the Risk Shield team and the FANRPAN staff made to Nile Breweries after the WII trainings in December 2015, a number of discussions have taken place, and the contact person in Nile Breweries had a meeting with the management team on insuring their farmers in Bukwo and Swam areas. They agreed in principle that this is the rout they would want to take, they want to co-share the premium with the farmers at the beginning but slowly introduce them to pay their premiums fully.

On reaching this decision, they also agreed that since this is a new concept, there needs to be client education before the farmers finally enrolled on the cover. Given the time available before March the start of the season and the work that needs to be done, they agreed that emphasis be put on the August season for the cover. Client education and sensitization planned to commence at least 2 months before the start of the season, and their agronomists and farmer leadership have been suggested to be trained as Trainers to pass on the information to the farmers.

Nile Breweries have also suggested having a dry run for this March season, to give them a more understanding of how the product works and how the product monitoring is done.

It is important to note that Uganda as a country has also decided to go agriculture insurance, supporting al, the traditional and Indexed Insurance. The groups of insurance Companies have together with the Insurance Regulatory authority requested the Government for a premium subsidy. The government in response promised to give the requested subsidy.
Final Remarks
The Government will work hand in hand with Akorion, a project that works with local communities to provide up-to-date agricultural information through village agents. The Government will support a risk mitigation strategy for farmers to adopt products and services that are designed to increase production and productivity. This scheme has been planned for the forthcoming 2016/2017 budget, anticipated to start in the August season.

Agriculture insurance in Uganda is still in its infancy and provided by the private sector. Government’s intervention through provision of a premium subsidy will increase the farmers’ access to agricultural loans from financial institutions.

This final report is accompanied by update reports for Phase 1 and Phase 2 and also training materials, training guidelines and policy briefs.