Agri-insurance for smallholder farmers

Industry perspective

October 26, 2021
ISF is an advisory team that develops financial solutions for the rural enterprise market.

ISF transforms rural economies by delivering **partnerships and investment structures** that promote financial inclusion for rural enterprises and smallholder farmers.

ISF mobilizes financing for rural enterprises and seeds replication of innovative models through our role as a “**design catalyst**”.

ISF’s activities are informed by **proprietary research** into critical issues affecting smallholder finance.
In 2018, we released the “Protecting growing prosperity” report which took stock of the global state of agri-insurance for smallholder farmers

Major areas of 2018 research

- **Global supply, demand and gap estimates separated by region and type of farmer**
- **An ecosystem-based view of the market with major trends and key challenges identified**
- **Product-based taxonomy, profiling and statistics based on a global database**

Source: Protecting Growing Prosperity report (2018; ISF Advisors)
Since 2018, the context for agri-insurance has changed...

1. **The climate crisis** is escalating with extreme weather events like storms, floods, and droughts doubling from an average of 300 events per year in the 1980s to 600 per year in 2010.

2. **The COVID-19 crisis** has highlighted rural communities’ extreme vulnerability to shocks, governments’ lack of preparedness to offer social protection at scale and the volatility of global supply chains.

3. **A new emphasis on food systems** is creating a more inter-connected context for how agri-insurance is positioned.

ISF and the Microinsurance Network (MiN) are currently working with a consortium of interested donors including the Gates Foundation, Syngenta Foundation, Swiss Re Foundation and Financial Sector Deepening Africa (FSDA) to take stock again of agri-insurance for smallholder farmers and engage the industry in a new reflection process.
SEVEN MAJOR AREAS OF CHANGE

**DEEPENING FINANCE LANDSCAPE**
Broader financial resources being mobilized with some impact investment and commercial capital being deployed

**MATURING PRODUCTS**
Maturing products with increasing scale, commercial orientation and diversity in coverage but many still highly “development anchored” and dependent on subsidy

**CHANGING CONTEXT**
The changing imperative around climate adaptation, and holistic view of food systems and risks, is creating a new inter-connected context for agri-insurance for smallholder households

**MORE EVIDENCE, PERSISTENT GAPS**
Lots of practical learnings and some emerging evidence but still lots of gaps to fill

**DISRUPTIVE LEADERSHIP**
A small set of pioneering insur-techs and re-insurers are leading the way, focusing on filling in the technical and capability gaps of hesitant traditional insurance players

**DATA AND TECH EVOLUTION**
Incremental innovations on data and technology but no easy game changers
# Highlight 1: Industry structure

## Value chain players

<table>
<thead>
<tr>
<th>ACTIVELY ENABLING</th>
<th>LARGELY FOLLOWING</th>
<th>LARGELY DRIVING</th>
<th>GROWING DEMAND</th>
<th>HOPELY DISENGAGED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly engaged re-insurers taking a long-term view and variety of positions</td>
<td>Largely passive participants investing little, retaining little risk and relying on intermediaries to support distribution</td>
<td>Highly engaged actors supporting the development and roll out of solutions with emerging business:</td>
<td>Growing demand for insurance options, particularly from input providers, Governments, FSPs, development agencies and aggregators</td>
<td>High need with significant and growing concern about climate related risks but low awareness, understanding and demand for insurance</td>
</tr>
</tbody>
</table>

## Ecosystem enablers

<table>
<thead>
<tr>
<th>ACTIVELY SUPPORTING AND SHAPING INVESTMENTS</th>
<th>LARGELY REACTING</th>
<th>OPPORTUNISTICALLY ENGAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>InsuResilience established as the largest scale funder for agri-insurance with grant-based funders continuing to support innovation</td>
<td>Some engaged regulators seeking to develop the agri-insurance market through regulation and sometimes as a direct distributor</td>
<td>Public data sources maturing</td>
</tr>
<tr>
<td>BASIC program, WB GIIF, MCII, MIN, ILO and others focus on distilling high level learnings, policy advocacy with others focused on catalyzing markets</td>
<td></td>
<td>A number of private data-companies providing more advanced analytics and data sets</td>
</tr>
</tbody>
</table>

In a traditional insurance market local insurers (supply) and customers (demand) would be the primary drivers of market activity, in this market intermediaries are actively driving...
Highlight 2: Product landscape

In 2018 the industry was still primarily considering agri-insurance in terms of the index approach used...
Reconsidering the product landscape in more traditional terms would focus in the first instance on the type of cover and the risks covered...
## Highlight 2: Product landscape

### Agri-insurance product map for smallholder farmers

<table>
<thead>
<tr>
<th>RISKS COVERED</th>
<th>TYPE OF COVER</th>
<th>DROUGHT/ TEMP</th>
<th>EXTREME PRECIPITATION</th>
<th>TYPHOON/ CYCLONE</th>
<th>PESTS AND DISEASES</th>
<th>PRICE VOLATILITY</th>
<th>Other...</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT COVER</td>
<td>(Cost of seed/ fertilizer)</td>
<td>Seedco/ACRE Kenya (P: Rainfall)</td>
<td>OAF/Global Parametrics Kenya (P: Evaporation/Rainfall)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Many other events may be covered in addition to the major categories depicted here</td>
</tr>
<tr>
<td>PRODUCTION EVENT COVER</td>
<td>(Cost of alternatives, e.g. animal fodder)</td>
<td>Pula IBLI Kenya (P: NDVI)</td>
<td>MICRO catastrophic event protection against extreme rainfall, drought, earthquake; business interruption &amp; production cover (P: weather)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>LABOR COVER</td>
<td>(Cost of labor)</td>
<td></td>
<td></td>
<td>PepsiCo India (P: humidity and temperature)</td>
<td>Risk Shield trial (P: area yield index + price)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REVENUE PROTECTION</td>
<td>(Revenue below expected threshold)</td>
<td>OKO Mali (80% revenue; P: Rainfall)</td>
<td></td>
<td></td>
<td>Value chain contract derivatives (floor prices)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASSET PROTECTION</td>
<td>(Livestock death)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IBLI Mongolia (P: Regional livestock mortality rates)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: ISF analysis

### Key parameters:
- **P**: Key parameter
## Highlight 3: Intermediary business models

<table>
<thead>
<tr>
<th>TYPE OF INTERMEDIARY (NON-EXHAUSTIVE)</th>
<th>INTERMEDIARY SERVICES AND BUSINESS MODEL</th>
</tr>
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</table>
| **END TO END PROVIDERS**             | - Focus on providing services to the farmer or to the farmer aggregator such as input provide, FSP, cooperative or government program  
- Offer back-end and front-end solutions to support design and delivery of services to the farmer  
- This business model requires continuous adaptation of the product and pricing based on unique client context, which results in more proactive feedback loops  
- Some of the end-to-end players provide customer helplines, additional customer engagement function, including farmer training  
- Often engage re-insurer strategically in advance of market entry |
| **INSURTECHS**                       | - Focus on providing services to the insurer or offering a mesa level cover  
- Offer index, index customization, pre-select global data sources and proactively engage in finding ground-truthing data for creating and validating the models  
- Support parameters’ assessments and model updates into the future  
- In some instances could recommend a reinsurer to their client |
| **SPECIALIST TECHNOLOGY PROVIDERS¹ (BACK END)** | - Support insurer and development sector partners in finding appropriate indices, data sources, actuary modelling and best practice in delivering to the end customer |
| **CONSULTANTS AND ADVISORS**         | - |
Highlight 3: Emerging integrated approaches

**Risk management | Layers of agricultural risk**

- **Small-scale, recurrent risks**
  - Frequency: Frequent
  - Severity: Small
  - Stakeholder: Smallholder farmers, cooperatives

- **Frequent, relatively minor losses**
  - Frequency: Frequent
  - Severity: Large/severe
  - Stakeholder: Insurance/re-insurance companies

- **Large/severe, infrequent risks**
  - Frequency: Infrequent
  - Severity: Rare catastrophic events
  - Stakeholder: Reinsurance companies

- **Rare catastrophic events**
  - Frequency: Rare
  - Severity: Catastrophic
  - Stakeholder: Governments

**Examples of integrated approaches**

- **RISK LAYERING APPROACH: IBLI MONGOLIA**
  - Drawing on historical livestock losses data, Mongolia has developed an insurance scheme that combines self-insurance, market based insurance and a social safety net.

- **INTEGRATED APPROACH: ONE ACRE FUND**
  - One Acre Fund sees insurance as a part of an integrated suite of products and services that include pre-financing, inputs, training an agricultural technologies for climate mitigation and adaptation, storage at the end of the season and market facilitation.

**NOTE:** With climate change many risks (floods, droughts, typhoons) are becoming more severe and more frequent, compromising the prediction accuracy of historical models and the appetite for insurers to be involved.

Source: ISF analysis
Engaging further

If you are interested in this initiative or would like to learn more please get in touch:

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