Agriculture Insurance “Global overview & Pan-African Perspective”

Working Smarter to Address Agricultural Risk Challenges

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Contents

Introduction: agriculture insurance in broader context of disaster risk financing

Overview of agricultural insurance policy/programme across the world and Africa

Challenges faced in the implementation of agricultural insurance across African countries

Potential solutions to the implementation challenges

World Bank Group offerings
Agriculture Insurance put into context: Portfolio of Financial Instruments

- **Risk transfer to the market**
  - Catastrophe bonds / notes
  - Facilitates risk transfer to capital markets
  - Weather index Insurance
  - Insures against weather or geologic losses, based on an index

- **Contingent Loans**
  - Contingent component of IDA loans/Development Policy loan of IBRD with Catastrophe Draw Down Option

- **Reserves/Contingency Funds**
  - Contingent component of IDA loans/Development Policy loan of IBRD with Catastrophe Draw Down Option
retention and risk transfer

Need to identify, quantify & cost and prioritize risk [per sub-sector, crop and region]

Risk stratification (layering) [what risk can be retained farmers, what can be transferred, what can be addressed through social protection organized by the government?]

Identification of risk layers & assessment current disaster relief framework will be necessary to assign financial burden
Agricultural Insurance World Wide
Premiums 2014
GLOBAL PERSPECTIVE - Split by lines of business Worldwide

- Crop MPCI: 62%
- Crop Hail: 21%
- Livestock: 6%
- Forestry: 3%
- Aquaculture: 3%
- Equine: 5%
Crop Losses by Cause (2011 data)

- Drought: 47%
- Excess Moisture: 22%
- Frost: 13%
- Hail: 9%
- Disease: 4%
- Flood: 2%
- Windstorm: 2%
- Insects: 1%
Challenges faced in implementing agriculture insurance in Africa

Low effective demand
- Production is at subsistence level - highly discounted future
- Limited agriculture insurance knowledge; trust

Risk transfer (index insurance) – new science, few experts
- Product suitability – basis risk
- Product Distribution

Product appropriateness
- Lack of historical data
- Product pricing

Government involvement (quantification of loss & Damage)
- No clearly defined policy objectives
- Limited support of agriculture insurance market
Solutions: Public-Private Partnerships (PPP)

Typical examples:
- India
- Mongolia
- Spain
- United States
- Kenya
- etc.

The top 10 government-subsidized agricultural insurance nations accounted for $13.4 billion (89 percent) of total agricultural insurance premiums in 2007.
you could include these updated 2011 figures which I have drawn up from various sources which are the top 10 subsidized agricultural insurance nations accounted for $19.7 billion (89%) of total agricultural insurance premiums of $23.5 billion in 2011.

The only country that was in the top 10 in 2011 and which does not have premium subsidies was Argentina ranked no 9 with $ 450 million in premiums in 2011. I have excluded Argentina from the above analysis of the top 10 SUBSIDIZED nations.
Agricultural insurance can be used to pursue different policy objectives within the context of climate change.

- **Raise productivity**: Can help improve access to agricultural credit, agricultural inputs for farmers.
- **Enhance farmers’ resilience**: Can provide farmers with some protection against catastrophic losses.
- **Protect the Government’s budget**: Can help reduce the contingent liability for governments.

**RISK FINANCING AND INSURANCE PROGRAM (DRFIP)**
Solutions: Strong public support could be in variety of ways

- Data collection and management
- Premium subsidies
- Registration & awareness raising for beneficiaries/policy holders
- Training for distributors
- Capacity building for insurance industry

- Product research and development
- Administrative & operating expense reimbursement
- Catastrophe loss protection
Simulate uptake: government policy interventions
examples

- Make crop insurance compulsory for farmers accessing formal credit
  - India, Mexico, Brazil, Sudan, Morocco

- Set standards for pricing and coverage levels
  - USA, Spain, Turkey

- Provide disaster aid only to farmers who have purchased crop insurance
  - USA, Spain

- Establish statutory coinsurance pool
  - Turkey, Spain

- Link to new or existing social safety net programs
  - Kenya, Mongolia

- Establish agricultural insurance legislation
Can developing countries afford a universal insurance mechanism?

- boils down to understanding what is the alternative
- Need to undertake fiscal costing of risks that could be addressed through insurance
- Undertake economic impact analysis of agriculture insurance intervention
- Compare with alternatives and if +ve then support implementation

Funding mechanism for universal, affordable and effective agricultural insurance

- Public financial support need to be directed to address certain gaps in provision of agriculture insurance
The Disaster Risk Financing and Insurance Program (DRFIP)

provides advisory and knowledge services to increase capacity to plan for, and manage the financial aspects of disaster-related risks. It includes:

- Fiscal and financial risk assessment that identifies needs and contingent liabilities
- Developing risk financing strategies that use a number of tools
- Strengthening institutional frameworks for managing financial instruments and mobilizing funds
- Developing new tools and approaches

Currently working in over 30 countries
The largest Agricultural Insurance Markets are mainly concentrated in High Income Countries and mostly show very high levels of Public-Premium Subsidies (11 figures)

<table>
<thead>
<tr>
<th>Country</th>
<th>Type of Agricultural Insurance market</th>
<th>Government Premium Subsidies</th>
<th>Total Agricultural insurance premiums (USD Million)</th>
<th>% of Total Global Premium Volume</th>
<th>Agricultural GDP (US$ Million)</th>
<th>Agricultural Insurance penetration of Ag GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>PPP (MPCI); Private (Hail)</td>
<td>7,410</td>
<td>11,400</td>
<td>49%</td>
<td>175,699</td>
<td>6.49%</td>
</tr>
<tr>
<td>China</td>
<td>Public-Private Partnership</td>
<td>2,034</td>
<td>2,543</td>
<td>11%</td>
<td>918,138</td>
<td>0.36%</td>
</tr>
<tr>
<td>Canada</td>
<td>Public</td>
<td>690</td>
<td>1,379</td>
<td>6%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>China</td>
<td>Public-Private Partnership</td>
<td>600</td>
<td>1,200</td>
<td>5%</td>
<td>71,568</td>
<td>1.68%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Public-Private Partnership</td>
<td>602</td>
<td>926</td>
<td>4%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>China</td>
<td>Public-Private Partnership</td>
<td>437</td>
<td>673</td>
<td>3%</td>
<td>320,458</td>
<td>0.19%</td>
</tr>
<tr>
<td>Mexico</td>
<td>Public-Private Partnership</td>
<td>276</td>
<td>552</td>
<td>2%</td>
<td>78,856</td>
<td>0.98%</td>
</tr>
<tr>
<td>Argentina</td>
<td>Private</td>
<td>0</td>
<td>450</td>
<td>2%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Brazil</td>
<td>Public-Private Partnership</td>
<td>215</td>
<td>430</td>
<td>2%</td>
<td>129,382</td>
<td>0.35%</td>
</tr>
<tr>
<td>Mexico</td>
<td>Public-Private Partnership</td>
<td>150</td>
<td>300</td>
<td>1%</td>
<td>69,693</td>
<td>0.43%</td>
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<tr>
<td>Mexico</td>
<td>Public-Private Partnership</td>
<td>133</td>
<td>260</td>
<td>1%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Sub Saharan Africa</td>
<td>Private</td>
<td>0</td>
<td>153</td>
<td>1%</td>
<td>n.a.</td>
<td>1.77%</td>
</tr>
<tr>
<td>Japan</td>
<td>Private</td>
<td>0</td>
<td>150</td>
<td>1%</td>
<td>61,682</td>
<td>0.24%</td>
</tr>
<tr>
<td>of World</td>
<td></td>
<td>617</td>
<td>3,084</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Brexit countries SwissRe 2013; Boissonade 2015; Authors. Authors estimates of Government premium subsidies
BG provides a range of services to support PPP for agricultural insurance

<table>
<thead>
<tr>
<th>Product</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic studies</td>
<td>Kenya, South Africa, Bangladesh</td>
</tr>
<tr>
<td>Analytical tools for financial decision making (e.g. contract design tool, index insurance product evaluation tools)</td>
<td>Kenya, Pacific Islands</td>
</tr>
<tr>
<td>Technical assistance for design, preparation and implementation of large scale agricultural insurance schemes</td>
<td>India, Mongolia, Kenya</td>
</tr>
<tr>
<td>Technical assistance for legal and regulatory issues</td>
<td>CIMA countries, Kenya</td>
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<tr>
<td>Publications</td>
<td>Government support to agricultural insurance, 2010; Dull Disasters, 2016</td>
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<tr>
<td>Funding for investments related to agricultural insurance implementation (e.g. data and systems, risk financing)</td>
<td>Mongolia, pipeline</td>
</tr>
<tr>
<td>Intermediation services to establish regional sovereign or retro–sovereign insurance pools</td>
<td>Caribbean Catastrophe Risk Insurance Facility; Pacific Catastrophe Risk Insurance pilot</td>
</tr>
<tr>
<td>Regional trainings and peer exchanges</td>
<td>Kenya, Mozambique, Sri Lanka</td>
</tr>
<tr>
<td>Communities of practice</td>
<td>Global Action Network on agriculture insurance, indexinsuranceforum.org</td>
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<tr>
<td>Collaboration among countries, private sector and development partners</td>
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Further Information

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Policy objectives inform the choice of appropriate products.

- **MPCI**
  - Named Peril
  - Index Insurance

- **Commercial Crop and Livestock Producers** (top 5% of Kenyan farmers)
  - Medium/large farm units
  - Commercial dairy & beef herds
  - Mechanized production
  - High access to credit
  - High levels of input use
  - Produce for sale

- **Semicommercial Crop and Livestock Producers** (middle 20% of Kenyan farmers)
  - Smallholder farmers
  - Smallholder livestock producers
  - Some assets
  - Some access to credit
  - Part consumption/part sale

- **Subsistence Farmers/Pastoralists** (bottom 75% of Kenyan farmers)
  - Very small/no land
  - Very few assets
  - Subsistence farming
  - Nomadic Pastoralists

**Social Safety-Net Programs: Macro-Level Crop and Livestock Index Insurance**
Risk Layering

- Small
- Middle
- Large
- Catastrophic

- Farmers
- Cooperatives
- Insurer
- Reinsurer
- Government

Risk transfer
Risk pooling
Risk retention
Drought Contingency Funds/Reserves

- Arid & Semi-Arid Lands Drought Contingency Fund Project (ASAL DCF)
- County contingency funds
- Internal Risk Facility (IRF)
- National Drought Contingency Fund (NDCF)

Drought Contingent Loans

- Contingency for disaster risk response component of Regional Pastoral Livelihoods Resilience Project (RPLRP)
- Scalability component of Hunger Safety Net Program (HSNP)
- Development Policy Loan with Catastrophe Deferred Draw-Down Option (CAT-DDO)

Market Risk Transfer

- Africa Risk Capacity (ARC)
- Index-Based Livestock Insurance (IBLI)
- Private-sector agricultural insurance programs
- Kenya Livestock Insurance Program PPP (KLIP)
- Kenya Crop Insurance Program
- Weather insurance to cover drought risk impact on hydropower