Index insurance for agriculture in Ethiopia
Addis Ababa, Ethiopia, 9 December 2010

Insurance for the Rural Poor

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Agricultural risk, household coping strategies and the potential of formal insurance products and indexed insurance in rural areas of a developing country
Motivation

• Selling insurance?
• Convincing that there is a market out there
• Untapped but worth developing
Plenty of risk....

Households reporting a particular event or shock affecting their wealth or standard of living considerably in last four years, Ethiopia 2006

(Young lives data)
Plenty of uninsured risk...

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<tr>
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<th>Urban</th>
<th>Rural</th>
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<tr>
<td>Any shock?</td>
<td>67</td>
<td>86</td>
</tr>
<tr>
<td>Illness in family</td>
<td>22</td>
<td>31</td>
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<tr>
<td>Price shocks</td>
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<tr>
<td>Job loss</td>
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<td>Death in family</td>
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<td>Land eviction</td>
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<td>Drought</td>
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<td>Rain/flood</td>
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<td>Frost</td>
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Most rural societies – risk is part of life

- Adjust their livelihoods (risk management)
  - Avoid costly inputs, go for safe activities etc.
- Are cautious in terms of investments and assets (risk coping)
  - Keep liquid assets, small stock, grain stores
- Support each other in communities
  - Informally – family
  - Use equbs, churches,
  - More formally via *iddirs*

**LESS RISK BUT ALSO LOWER RETURN**

**LOWER RETURN ON SAVINGS**

**SMALL RISK POOL SO COSTLY**
Why not go out and just sell?

- Trust: they part with their money
- Understanding: they don’t understand insurance?
- Data: actuarial data, models
- Profits and Costs: selling, verification, payouts
Plenty of uninsured risk...

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What rural markets?

• Health
• Life
• Livestock
• Crops and Climate
• (Price)
Understanding Niche

When can formal insurance be profitable?

• When formal insurance has comparative advantage over other protection
  – The CCC: Covariate, Correlated, Catastrophic
    (may compete with Government Social Protection)

• Defined “platforms” for delivery (to reduce cost)

• Low cost verification and other data problems
Platforms for delivery?

- MFIs: 2 million rural customers, mostly in group lending schemes, probably insured in one way or another
- Cooperatives: input supply delivery system
- Iddir: 90% of Ethiopian population in insurance groups
  - And do more: Property (40%), illness (30%), fire (28%), death of cattle (24%), harvest (14%)

... They can be agents or simply insured party
Understanding Niche

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Health in rural areas?

• Hospital costs often ‘catastrophic’
• Most schemes in the world appear health financing rather than health insurance schemes
• Scope for iddir-based delivery
• Evidence:
  – Often big stimulus required from ‘social insurance broadening’ in rural settings
  – Then use this as platform
    • Ghana
    • India
Rural Life

• Pretty catastrophic, not covariate
• Data issues less problematic (actuarial models and verification)
• In many other countries, basis for broadening:
  – E.g. Market for formal insurance in South Africa
• MFI platform (credit life but also more)
• Iddir platform!
Agriculture?

• Typical advice: stay away from it, unless government guaranteed

• Problems:
  – All CCC = so niche
  – But costly verification of harvest losses or animal deaths
    • Heterogeneity
    • Costly monitoring
    • Lots of small farmers so high transaction costs

• Cenfri report: “at least 2 ha land and/or 10 cattle”
Problem 1: Data

• Harvest....

• However: key source of loss = climatic
  – Design products linked to index that can be ‘cheaply’ monitored
  – If index below or above threshold, pay
  – Can be in small tranches, linked to one peril or more, with multiple thresholds
  – Still data problem – but more scope to overcome (weather data, satellite data, area-yield index, etc.)
  – NOTE: basis risk is problem (is this the loss?)
Problem 1: Data

• Increasingly experience with index based products
  – From the US, to Mongolia to India
  – and to Ethiopia
• Underwritten by international insurance companies
Problem 2: Platform

• Cooperatives or MFIs
  - link it to input supply, e.g. loans for inputs
  - but payout based on index not loss
• Iddirs!
  – Understand insurance, and have been broadening insurance for many other risks
• Using them as agents or as insured party
Conclusion

• Clear niche for insurance for the rural poor
• Including for crops and livestock
• Plausible model is partnership with institutions with spread in rural areas
  – MFI/Cooperatives
  – Iddirs