Climate Risk Insurance for the Poor and Vulnerable

Principles for “InsuResilience”
I. Problem Setting: Climate change, poverty and insurance

II. How to effectively target poor and vulnerable with climate risk insurance - The Pro-Poor Study

III. Principles for effective climate risk insurance for the poor and vulnerable
I. Problem setting: Climate change, poverty and insurance
The Database Today

- From 1980 until today all loss events; for USA and selected countries in Europe all loss events since 1970.
- Retrospectively, all great disasters since 1950.
- In addition, all major historical events starting from 79 AD – eruption of Mt. Vesuvius (3,000 historical data sets).
- **Currently more than 36,000 data sets**
Loss events worldwide 1980 – 2015

Number of relevant events by peril

Accounted events have caused at least one fatality and/or produced normalized losses ≥ US$ 100k, 300k, 1m, or 3m (depending on the assigned World Bank income group of the affected country).

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Income Groups 2014
Defined by World Bank

High income economies
(GNI ≥12,746 US$)

Upper middle income economies
(GNI 4,126 – 12,745 US$)

Lower middle income economies
(GNI 1,046 – 4,125 US$)

Low income economies
(GNI ≤1,045 US$)
Insurance penetration worldwide 2014
defined by Munich Re

Insurance penetration per country
Classification per capita by property insurance premium (non-life including health)

- Highly insured (>1,000 US$)
- Well insured (101 – 1,000 US$)
- Basically insured (10 – 100 US$)
- Inadequately insured (<10 US$)
- No data
Weather-related loss events worldwide 1980 – 2015
Income Groups 2015 – Percentage distribution

Number of relevant events: 16,600
Overall losses: US$ 3,200bn

Fatalities: 860,000
Insured losses: US$ 940bn

- High income economies (GNI ≥12,736 US$)
- Upper middle income economies (GNI 4,126 – 12,735 US$)
- Lower middle income economies (GNI 1,046 – 4,125 US$)
- Low income economies (GNI ≤1,045 US$)

Accounted events have caused at least one fatality and/or produced normalized losses ≥ US$ 100k, 300k, 1m, or 3m (depending on the assigned World Bank income group of the affected country).

Events reported at individual country level: i.e. storm could affected three countries and is reported as three events.

- 76% of all fatalities in lower middle/low income economies
- Only 2% of overall losses insured in lower middle/low income economies

US$ 832 bn overall losses in lower middle/low income economies

76% of all fatalities in lower middle/low income economies

Only 2% of overall losses insured in lower middle/low income economies
Weather-related loss events worldwide 1980 – 2015

Trends of number of relevant events per income group

**High income economies**
(GNI ≥12,736 US$ in 2015)

**Upper middle + lower middle + low income economies**
(GNI ≤12,735 US$ in 2015)

- **High income economies**
  - Equation: \( y = 9.0974x + 108.84 \)

- **Upper middle + lower middle + low income economies**
  - Equation: \( y = 4.0826x + 107.69 \)
Cumulative Development of a Country’s Gross Domestic Product Following a Major Natural Disaster

a) Countries with a comprehensive natural catastrophe insurance system

b) Countries without a natural catastrophe insurance system

Source: Munich Re, based on von Peter et al., Bank for International Settlements, 2012 (schematic presentation)
II. How to effectively target poor and vulnerable with climate risk insurance - The Pro-Poor Study
**List of analyzed insurance schemes**

<table>
<thead>
<tr>
<th>Level</th>
<th>Scheme</th>
<th>Acronym</th>
<th>Country/Region</th>
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</thead>
<tbody>
<tr>
<td>Micro</td>
<td>Index-Based Livestock Insurance Program</td>
<td>IBLIP</td>
<td>Mongolia</td>
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<td>Modified National Agricultural Insurance Scheme</td>
<td>MNais</td>
<td>India</td>
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<td>Philippine Crop Insurance Program</td>
<td>PCIP</td>
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<td>SANASA Agricultural insurance</td>
<td>SANASA</td>
<td>Sri Lanka</td>
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<td>PepsiCo - Scheme</td>
<td>PEPSICO</td>
<td>India</td>
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<td>R4 Initiative</td>
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<td>MicroEnsure</td>
<td>MICROENSURE</td>
<td>Rwanda</td>
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<td>Agriculture and Climate Risk Enterprise</td>
<td>ACRE</td>
<td>Kenya Rwanda Tanzania</td>
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<td>Index based livestock insurance</td>
<td>IBLI</td>
<td>Kenya, Ethiopia</td>
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<td>Microinsurance Catastrophe Risk Organisation (Micro Haiti)</td>
<td>MICRO-HAITI</td>
<td>Haiti</td>
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<td>La Positiva Seguros</td>
<td>LA POSITIVA</td>
<td>Peru</td>
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<td>Meso</td>
<td>Livelihood Protection Policy</td>
<td>LPP</td>
<td>Latin America &amp; Caribbean</td>
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<td>PlaNet Guarantee</td>
<td>PLANET GUARANTEE</td>
<td>Mali, Burkina Faso</td>
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<td>Macro (Pan-national fund)</td>
<td>Index Based Flood Insurance Project</td>
<td>IBFIP</td>
<td>Bangladesh</td>
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<td>Caribbean Catastrophe Risk Insurance Facility</td>
<td>CCRIF</td>
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<td>African Risk Capacity</td>
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<td>National Disasters Fund (FONDEN) &amp; AGROASEMEX</td>
<td>FONDEN/ AGROASEMEX</td>
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<td>Pacific Catastrophe Risk Assessment and Financing Initiative</td>
<td>PACRAFI</td>
<td>Pacific</td>
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18 different insurance schemes analysed!
Key questions

- **Resilience:**
  Did the insurance scheme have positive impacts on the resilience of the poor and vulnerable?

- **Challenges:**
  What were challenges in reaching the poor and vulnerable with the insurance product?

- **Success factors:**
  What were success factors for the insurance product in reaching poor and vulnerable? What were the important elements in the design of the insurance product that helped in reaching the poor and vulnerable?

- **Enabling environment:**
  What kind of enabling environment supported the success of the product and reaching the poor and vulnerable?
Our analysis provides evidence that suggests - if embedded in a comprehensive climate risk management strategy, insurance can contribute to:

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<tr>
<th>Anticipate</th>
<th>Absorb</th>
<th>Adapt</th>
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<tr>
<td>Promote risk assessment</td>
<td>Improve financial liquidity after a disaster</td>
<td>Increase savings</td>
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<td>Reduce distress asset sales</td>
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<td>Increase investment in higher risk activities</td>
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<td>Increase food security</td>
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<td>Improve conditions to take up credits</td>
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<td>Enable rapid recovery</td>
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<td>Promote risk reduction behavior</td>
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III. Principles for effective climate risk insurance for the poor and vulnerable
Use insurance to meet the needs of the target group, make the scope of the cover inclusive and comprehensive.

Providing targeted premium support and financial means for measures that reduce premiums indirectly.

It is crucial to include beneficiaries in the design and implementation of insurance solutions to assure products truly match needs.
To reach the target group, experts recommend using aggregators like regional rural banks, mutual, refinancing banks, microfinance institutions, social protection pools of governments.

By pricing risk, insurance can provide an important price signal to incentivize risk reducing behaviour.

A holistic approach should be taken that supports locally driven and owned schemes and ensures that local needs and capacities are taken into account.

Transparency and accountability are preconditions for building long term trust in insurance programmes.
Enabling environment

- **Insurance literacy and financial inclusion**
  - Reaching poor and vulnerable people with climate risk insurance requires significant capacity building measures, often involving actors not yet familiar with the tools or principles of insurance.

- **Partnerships and networks**
  - Partnerships and networks (e.g. PPP) have been identified by many schemes as a success factor for the development and operation of the scheme.

- **Data and Technology**
  - The availability, quality and quantity of data and technology is a major facilitating factor for insurance schemes.

- **National regulatory frameworks and policies**
  - A regulatory framework provides legal parameters that guide the policy infrastructure of the scheme and sets guidelines for the operations of the stakeholders involved.

- **Supporting international policy**
  - An increased international focus on climate risk insurance strengthens the support and knowledge base (Sustainable Development Goals, Sendai Framework, InsuResilience).
Climate risk insurance should be embedded in a comprehensive climate risk management
Thank you!
Principles

Client value
- Comprehensive scope
- Affordability
- Participation

Effectivity, Efficiency, Sustainability
- Accessibility
- Economic Sustainability
- Social Sustainability
- Transparency and Accountability

Climate risk insurance embedded in comprehensive climate risk management

Enabling environment
- Insurance literacy and financial inclusion
- Partnerships and networks
- Data and Technology
- National regulatory frameworks and policies
- Supporting international policy
Findings *(Graphik wird noch überarbeitet)*

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<thead>
<tr>
<th>Level</th>
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CHALLENGE: Moving from Ex-Post to Ex-Ante Risk Management Using Insurance