International Agricultural and Natural Catastrophe Insurance Forum

Experience by GIZ
Matthias Range

Rüschlikon, Switzerland, October 2016
Agenda

- GIZ
- GIZ and Financial Systems Development
- GIZ and Agricultural and Climate Risk Insurance
  - GIZ and Swiss RE
  - ACRIplus
- Success Factors
GIZ ....

- is a **federally owned corporation**, organised as a private-sector entity, operating worldwide in the area of international cooperation for sustainable development.

- Commissioned by **public** and **private-sector bodies** inside and outside Germany, main commissioning party: the **German Federal Ministry for Economic Cooperation and Development**

- promotes complex reforms and processes of change in different sectors such as: sustainable economic development, energy, transport, infrastructure management, health, environment, climate and biodiversity.

→ The objective is to sustainably improve the living conditions and prospects for people in developing and transition countries.
GIZ Worldwide

- Operations in Germany and over 130 countries around the world
- Business volume of over EUR 2.1 billion in 2014
- Over 16,000 employees worldwide
Agenda

- GIZ
- GIZ and Financial Systems Development and Insurance
- GIZ and Agricultural and Climate Risk Insurance
  - GIZ and Swiss RE
  - ACRIplus
- Success Factors
Selected FSD Activities

**Global**

Alliance for Financial Inclusion
- Global alliance of over 85 countries to strengthen financial access
- Exchange platform for south-south dialogue

**Regional (Africa / Asia)**

The Alliance on Climate Risk Transfer Solutions
- Peer to Peer Learning
- National Dialogues
- Product development

**China (and other G20 countries)**

- Strategic Alliance on Green Bond Market Development
- Environmental Stress Testing

**D.R. Kongo**

Development of the Micro Finance Sector
- Reformation of the Central Bank
- Consumer Protection
- Credit information agency

**Peru**

Climate, Agriculture and Risk Transfer
- Enabling Environment
- Information Management
- Capacity Development

**India**

Rural Micro Finance
- NABARD Linkage Banking
- Reformation of credit cooperatives

**Regional Insurance Programme**

Regulation for Insurance Markets
- Product development
- Complainment management
- Capacity building for insurers

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ACRiplus
Approach to Financial Systems Development

- **Vision**
  Improving sustainable access to financial services for companies and individuals; Improving Financial Sector Stability

- **Ownership**
  Putting partner countries in the driving seat

- **Needs and Institutions**
  Designing tailored strategies according to the specific needs and social and cultural institutions of our partners

- **Multi-Level Approach**
  GIZ carries out activities on a macro, meso and micro level.
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Current ACRI Team HQ GIZ

2015

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ACRIplus

2016
Agriculture and Climate Risk Insurance Project Portfolio

**Ecuador (2017)**
- Resilience through Protection

**Peru**
- Climate, Agriculture and Risk Transfer (with Munich Re)

**Nigeria**
- Promotion of Economic Growth

**Ghana**
- Integrated Climate Risk Management

**Africa**
- Making Finance Work for Africa

**India**
- Rural Insurance Services Programme

**Southeast Asia**
- Agricultural Insurance, Food Security and Remote sensing technology (RIICE project, with Allianz Re)
- Regulatory Framework Promotion of Pro-poor Insurance Markets in Asia (RFPI Asia)

**Philippines**
- Disaster Risk Management and Insurance
- EWP Microensure

**Paraquay**
- Insurance for family farmers (with Hannover RE)

**Madagascar**
- Adaptation of Agricultural Value Chains

**Ecuador (2017)**
- Resilience through Protection

**Sector Projects / Initiatives Insurance (Global)**
- Sector Program Agriculture Insurance,
- G7 InsuResilience

**Sector Projects / Initiatives Insurance (Global)**
- Access to Insurance Initiative (A2II)

**Sector Projects / Initiatives Insurance (Global)**
- Advancing Climate Risk Insurance Plus (ACRI+)

**Sector Projects / Initiatives Insurance (Global)**
- Alliance on Climate Risk Transfer (with Swiss Re)
Climate Risk Insurance products – Overview

1) Protects farmers against the effects of low yield and low prices. It is a relatively new type of coverage, by which the sum insured is not the size of the harvest, but the revenue.

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**Indirect Climate Risk Insurance Schemes**

| Insurance approach: | Weather or Satellite-index insurance (Parametric trigger)  
|                     | Not indemnity based, but pre-defined |
| Risks:              | Extreme weather events |
| Insured/ target group: | Budget protection  
|                     | Intermediaries like municipalities or national governments, which coordinate pay-outs to the affected population |
| Delivery channel:   | Reinsurance |
| Benefits:           | Quick payout after event, reduction of claims settling and administrative procedures incentivising contingency planning |
| Impact:             | Keeps governments from taken on more debt  
|                     | Prevents people from falling into the poverty trap |
### Indirect Climate Risk Insurance Schemes PCARFI

<table>
<thead>
<tr>
<th>Insurance approach:</th>
<th>• Parametric Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risks:</td>
<td>• Tropical cyclone, earthquake, tsunami</td>
</tr>
<tr>
<td>Insured/ target group:</td>
<td>• Pacific Island Countries (PICs)</td>
</tr>
<tr>
<td>Delivery channel:</td>
<td>• Government of Japan, international reinsurers, Export-Import Bank of China</td>
</tr>
<tr>
<td>Benefits:</td>
<td>• Pooling country catastrophe risks and placing it through an aggregate portfolio resulted in significant premium savings (up to 50 percent) for participating PICs</td>
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<tr>
<td>Impact:</td>
<td>• Tonga received a payout of US$1.3 million after Tropical Cyclone Ian hit in 2014 and Vanuatu received a payout of US$1.9 million following Tropical Cyclone Pam in 2015</td>
</tr>
</tbody>
</table>
### Direct Climate Risk Insurance Schemes

| Insurance approach: | Weather, Satellite or area yield (farming) trigger  
|                    | Not indemnity based, but pre-defined  
| Risks:             | Extreme weather events of all kinds  
| Insured/target group: | 1) Individual, groups, MSME, MFI, cooperatives, etc.  
|                    | 2) Member of Aggregator  
| Delivery channel:  | Insurance companies, brokers, mobile network operators, microfinance institutions, cooperatives  
| Benefits:          | Direct, fast support to target group  
|                    | No extensive surveys of damages  
| Impact:            | Quick payouts  
|                    | Reduced donor coordination  
|                    | Limited corruption  

Matthias Range  
ACRIplus
### Direct Climate Risk Insurance Schemes: Philippines

<table>
<thead>
<tr>
<th>Insurance approach:</th>
<th>• Weather-index insurance products</th>
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<tbody>
<tr>
<td>Risks:</td>
<td>• High exposure to extreme weather events, torrential rain, strong wind</td>
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<tr>
<td>Insured / target group:</td>
<td>• Member institutions of Cooperatives and their individual low-income clients</td>
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<tr>
<td>Distribution channel:</td>
<td>• Cooperative Life Insurance and Mutual Benefit Services (CLIMBS)</td>
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<tr>
<td>Benefits:</td>
<td>• Support for cooperatives in managing exposure to risk, protecting equity and investments, preventing low-income households from slipping in poverty</td>
</tr>
<tr>
<td>Impact:</td>
<td>• CLIMBS unites over 1,600 cooperatives nation wide, potential outreach to over 900,000 members and policy holders</td>
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Scope of the Strategic Alliance – Overview

- Technical Capacity Building
- Support to National Dialogue
- Product Development

Knowledge Management
### Advancing Climate Risk Insurance Plus (ACRIplus)

<table>
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<tr>
<th>Public authorities develop country specific ICRM concepts, including implementation plans, for at least three sectors beyond agriculture</th>
<th>Lessons learnt, best practises of public private engagements on climate risk transfer solutions are comprehensively available</th>
<th>ICRM concepts and experience is made available to the international debate on climate risk management for replication and scaling-up purposes</th>
<th>Advise to the German Ministry of Environment and Building</th>
</tr>
</thead>
</table>

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ACRIplus
In every Disaster Risk Management, (DRM) residual risk cannot be avoided.

Residual risks call for risk transfer approaches.

Climate risk insurance (CRI) schemes thus form an important part of a comprehensive climate risk management approach.

Integrated with other phases, CRI can trigger synergies in other phases of an DRM.
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  - ACRIplus
- Success Factors
Key success factors

1) Enabling Policy Environment
2) Partnerships between Public and Private Sector
3) Integrated Risk Management Approach
4) Risk Diversification and Up-Scaling Potential
5) Innovation & Technology
6) Value for Clients & Consumer Protection
Enabling Policy Environment

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<tr>
<td>• Establishing an <strong>effective integrated climate risk management systems</strong> requires a broad consensus amongst policy makers → strong commitment</td>
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<td>• Focus on respective <strong>national policies, strategies, and action plans</strong></td>
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<td>• <strong>Mobilizing public resources</strong> and creating a <strong>regulatory framework</strong> are crucial for the set up</td>
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<td>• <strong>Being flexible</strong>: Policy environment is not static, but constantly changes in response to changes in the political and economic arenas, to changes in availability and costs of risk transfer products</td>
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Enabling Policy Environment

**Overview on selected policy elements**

**Tax policy**: preferential treatment of smallholder policies

**Premiums**: no premium caps; smart subsidies need to be designed for scale up: targeted, policy objective (social? Market development – address market failure? Etc.)

**Market configuration**: foster competition between private and public insurers

**Regulatory framework**: index based insurance contracts are allowed and approved by regulator and supervised

**Agricultural policy**: insurance integrated into sector development framework

**Social protection policy framework**: CCTs can be the delivery vehicle for cat protection for the most vulnerable

**Risk Data and Weather data**: Full access, at affordable rates to private and public actors

**Risk zoning**: (climate change impact adjusted) is needed – public good

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1) *MoA* = “Memorandum of Agreement” is a formal business document an agreement made between separate entities, groups or individuals.
Partnerships between Public and Private Sector

- An insurance Public Private Partnership seeks to combine business objectives with public policy goals in a cost-efficient way.

The **public** sector
represented by a ministry or local authority through a government program

The **private** sector
represented by the insurance industry, its service providers, distribution partners
2 Opportunities for the government and insurance industry

<table>
<thead>
<tr>
<th>Government</th>
<th>Insurance Industry</th>
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<tbody>
<tr>
<td>• Client-centered approach to product development</td>
<td>• Opportunities for improved data collection and data quality</td>
</tr>
<tr>
<td>• More efficient risk transfer through reinsurance markets</td>
<td>• Influence on the regulation</td>
</tr>
<tr>
<td>• Develop data on different risks to improve diversity of covers</td>
<td>• Reputational risk when disbursing pay outs</td>
</tr>
<tr>
<td>• Include private sector and target group perspective into regulation</td>
<td>• Create legally binding risk reduction</td>
</tr>
<tr>
<td>• Capacity Development and Technology Transfer</td>
<td>• An informed client is a better client (subsidies)</td>
</tr>
<tr>
<td>• Outsource risk and responsibilities</td>
<td>• An informed client is a better client (sovereign solutions)</td>
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</table>
Integrated Risk Management Approach

|-----------------------------|-------------------------------|----------------------------|--------------------------------|-------------------------|-----------------------------|

Graphic: GIZ / MCII (2016)
Hazard Analysis Decision on “CI”

Exposure Analysis

Vulnerability Analysis

Direct Impact

Indirect Impact

Risk Reduction Assessment

Risk Preparedness Assessment

Contingency Assessment

Risk Report

Recommendations for immediate actions (high risk / hazard exposures)

Identify risk / hazard exposures which require re-planning / re-structuring of lay-out / technical update

Insurance Modelling for different integrated intervention levels
IRM – Example from the ACCI-Peru project

Risk Identification
- Develop inventory of assets
- Determine hazards/risks

Risk Analysis
- Develop vulnerability model
- Develop model of hazards / risks

Risk reduction & prevention
- Prepare / maintain infrastructure for extreme events

Risk retention & transfer
- Develop financial risk mgmt. strategy
- Use variety of financial instruments (retention / transfer)
In order to lower covariate risks, the portfolio needs to be diversified in type of risks and different geographical regions.

Local market-based insurance is better suited to protect against more frequent risks, while the extremely rare, highly catastrophic risk layer is more effectively absorbed through international reinsurance.

Since risk diversification is difficult to build with stand-alone projects, insurance schemes need to reach scale quickly through capacity building.
Risk layering and up-scaling potential

**TAKEAWAY**

In order to address the systemic risk and to protect the viability of the insurance scheme, the following is required:

Diversification of risks (in terms of clients, crops, risks, perils and regions)

Availability of reinsurance

**Background**

**Fact**

Agricultural and climate risks are mainly of systemic nature

**Consequence**

- They affect a large geographical area and/or
- They affect large parts of the population simultaneously

**Implication/Thread**

If the risk insured is not adequately spread, one catastrophic event can threaten the viability of the whole scheme.
### Innovation and Technology

|-----------------------------|-------------------------------|-----------------------------|-------------------------------|-------------------------|-----------------------------|

- The high transaction costs of serving low-income clients demand innovative approaches and **technological advancements**
- Data collection, processing and management, premium payment mechanisms, and claims verification all inflate **operational costs**
- **Innovative approaches** that can help overcome these challenges include: index insurance products, mobile payment devices, and more accurate weather information from satellite data
- Individual **early warning systems**, social protection
**TAKEAWAY**

I&T can decrease costs of insurance scheme

Use cases
- **Managing / monitoring data** (e.g. remote sensing data)
- **Distribution channels** (e.g. integration of actors in the agricultural value chain by linking insurance to purchase of the seeds)
- **Claims handling** (e.g. remote loss assessment)

**EXAMPLE: RIICE Project¹**

- Rice biomass growth and damages are being observed through remote sensing technology across all target areas.
- The remote sensing data is being enhanced with ground data to make a rice growth model which can eventually forecast rice yield in the target areas.
- Insurance products are being developed that cover the farmer’s shortfall of production due to natural catastrophes.
- Distribution channels (rural lending banks, cooperatives, rice mills) are being identified and trained to roll out the insurance product.
- Local insurers sell the product through a distributor and reinsure the risk through an Allianz-led reinsurance pool.

¹) Partners: Allianz Re, GIZ under the develoPPP.de program on behalf of BMZ, International Rice Research Institute, sarmap SA, Swiss Agency for Development and Cooperation
Value for Clients & Consumer Protection

- Benefits, cost structures, consumer rights and responsibilities have to be communicated transparently and comprehensively in order to build and sustain trust.

- Insurance providers need to offer a diversified product portfolio that is tailored towards the specific needs of their clients.

- Consumer rights need to be safeguarded through the respective authorities, ensuring contractual commitments are met.
To understand the different interests of stakeholders – Narrow versus broad FCP

Financial Consumer Protection
|---------------------------broad understanding------------------|

<table>
<thead>
<tr>
<th>Narrow definition</th>
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<tbody>
<tr>
<td>Regulation, Supervision (Authorities)</td>
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<tr>
<td>Financial Consumer Protection (Consumer Associations)</td>
</tr>
<tr>
<td>Client Orientation (Providers)</td>
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</tbody>
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Firewall

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FCP Instruments and how to use them

- Authorities
- Consumer Associations
- Providers

- Law Enforcement
- Soft Law
- Politics & Regulation
- Media
- Science
Thank you for your attention

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