



EXPERIENCES IN MICROINSURANCE

Chicago – September 2016

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Senior Microinsurance Specialist



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Agenda

- 1. Insurance within the context of economic development**
- 2. What is microinsurance?**
- 3. Designing a microinsurance product**



Insurance within the context of Economic Development

Josh Ling

- Australian Actuary
- 4 years living in Latin America

Australia -> Switzerland -> Mexico -> Colombia -> Mexico

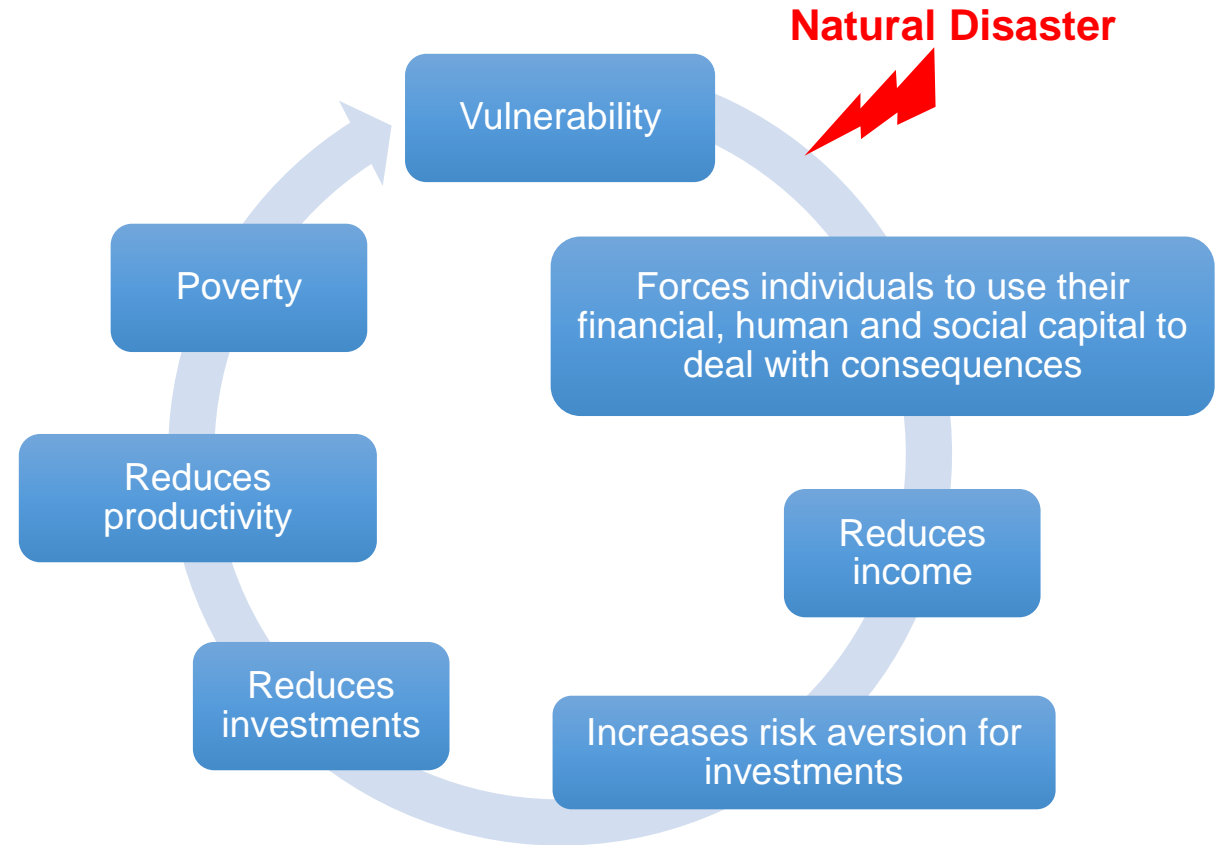
- Actuary in Deloitte Consulting – Sydney, Australia
- Since 2014 with Mercy Corps – in Mexico and Colombia
 - “Financial Services” team

About Mercy Corps

- Not for profit organisation
- Projects in transition countries
 - Communities in suffering
 - Communities recovering from natural disasters, conflicts or economic collapse
- Working in some of the most difficult countries in the world
 - Such as Afghanistan, Syria, Yemen
 - Guatemala, Colombia, Haiti in the Americas

Mercy Corps – why insurance?

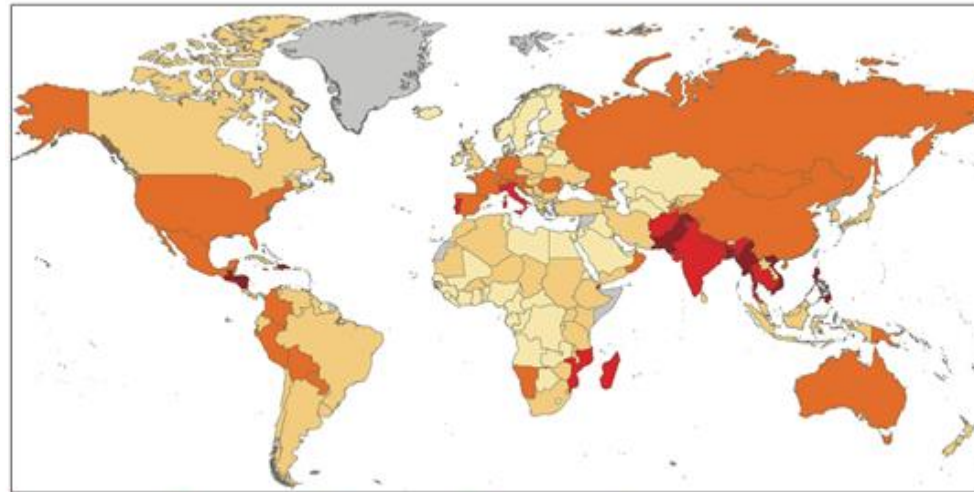
- Insurance is a risk management tool
- Provides resilience to external shocks
 - » So that economic development in transition countries is sustainable
- Helps to break the cycle of poverty



The Problem

- Latin America and the Caribbean is one of the regions most affected by climate events
- Foreseen that this risk will increase as a consequence of climate change
- The impact is even greater for low-income populations

Climate Risk Index: Ranking 1994 - 2013



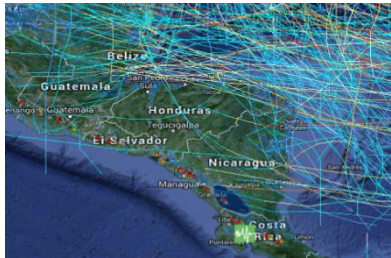
■ 1 - 10 ■ 11 - 20 ■ 21 - 50 ■ 51 - 100 ■ > 100 ■ No data

Source: Germanwatch y Munich Re

The importance: A challenge and an opportunity

- Region with high exposure to natural disasters
- ...and a low penetration of traditional insurance
- ... typically only a fraction of losses are insured

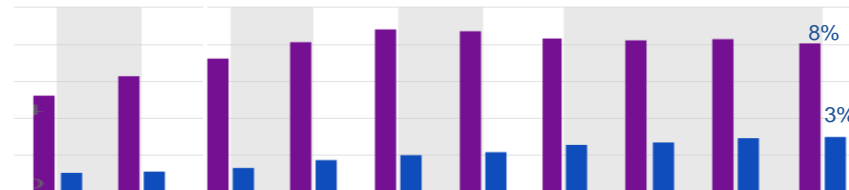
Huracán



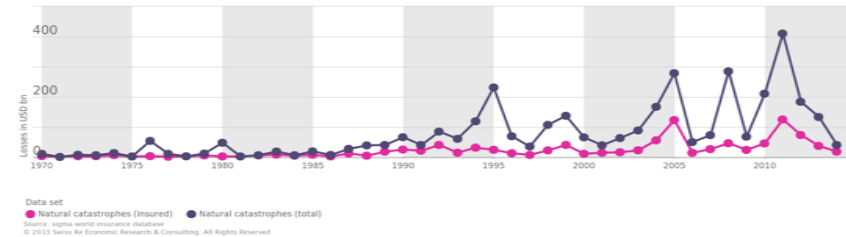
Terremoto



Primas / PIB (Economías avanzadas vs. Latinoamérica)



Pérdidas totales vs. Pérdidas aseguradas



Source: Swiss Re

Microinsurance to manage risk

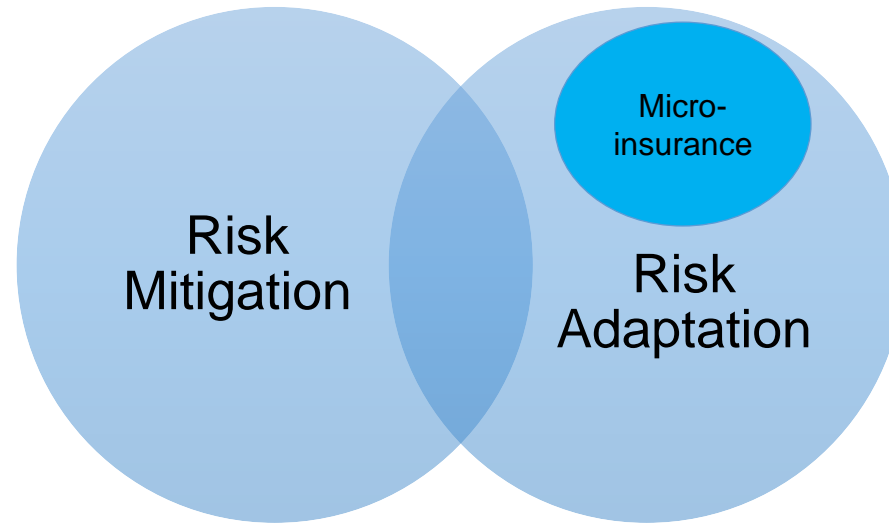
- Microinsurance is not the only risk management tool
 - And it is a very complex one
- **Risk mitigation** measures should be considered before **risk adaptation**

It is better to invest in an irrigation system before developing a microinsurance solution for exposure to drought and excess rain.



Microinsurance to manage risk

- Risk mitigation measures are efficient up to a certain point, beyond that it is necessary to adapt to the risk
- Microinsurance is one possible risk adaptation tool

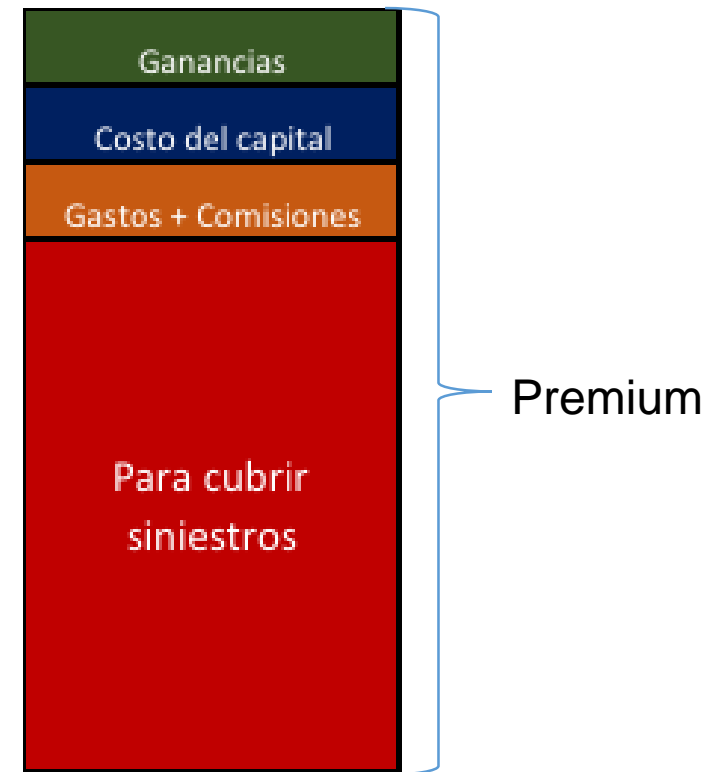


Microinsurance to manage risk

- The usefulness of microinsurance for risk adaptation, depends on the type of risk

*Most efficient for risks with **low frequency** and **high severity***

- For every \$1 of premium, the policyholder receives a percentage back in claims





What is microinsurance?

What is microinsurance?

It is insurance...

- Specifically designed for the needs of vulnerable low-income populations
- That corrects a market failure
- That has a social objective

Mercy Corps and microinsurance

- **MiCRO / Central America:** microinsurance for natural hazards
- **Colombia:** microinsurance for coffee and cacao producers
- **Indonesia:** insurance against earthquake for microfinance institutions
- **East Africa:** agricultural insurance sold over mobile phones

... and more under development



Created by Mercy Corps and Fonkoze in 2011

- MiCRO is **the only reinsurance company** specialised in the design and implementation of microinsurance solutions against natural disasters, **specifically targeted at vulnerable low-income populations**



- **Goal:** 250,000 insured individuals by 2019
- **Countries:** Guatemala / El Salvador
- **Expansion:** Honduras / Nicaragua / other regions
- **Product:** Distribution through microfinance networks
- **Coverage:** Earthquake, Drought, Excess Rain

MiCRO's strategic partners

Investors



KFW



Donors and
Partners



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC

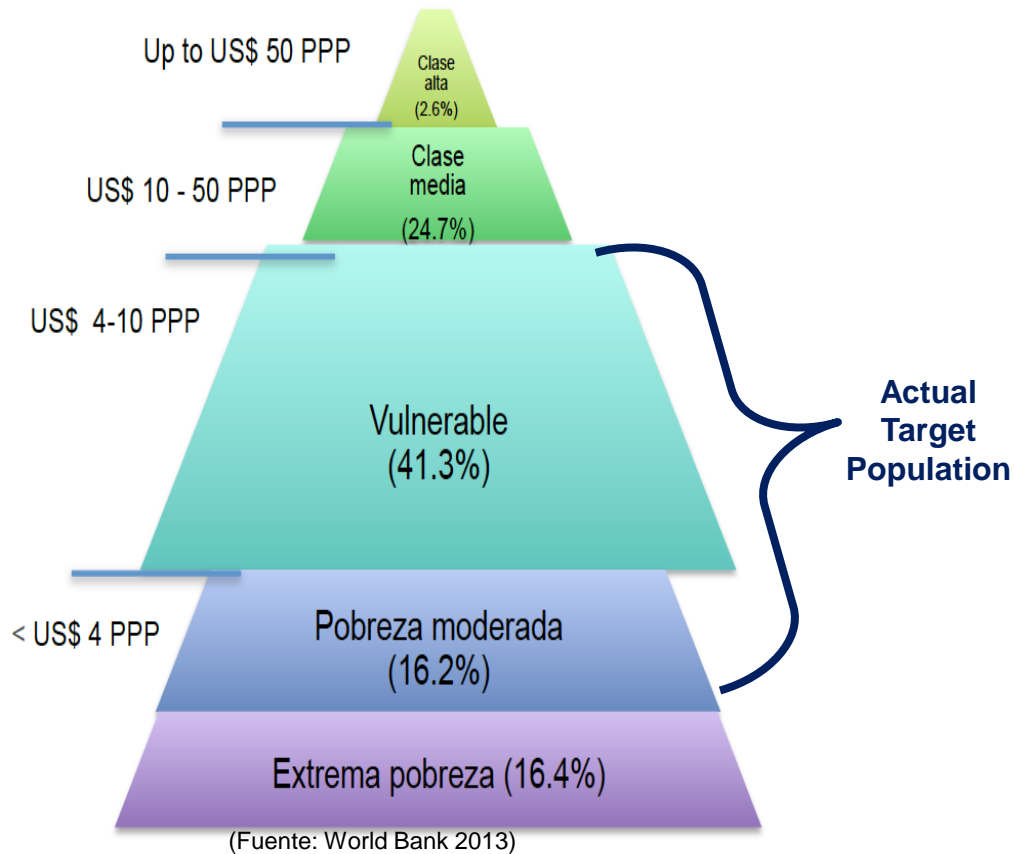


Multilateral Investment Fund
Member of the IDB Group

Swiss Re



MiCRO's Vision



That the **vulnerable low-income population** dedicated to productive activities has **access to efficient and effective risk management tools**, specifically designed to meet their needs in the event of a **natural disaster**.



Microinsurance Product Design

- Example of MiCRO

CONFIDENTIAL



Microinsurance Product Design

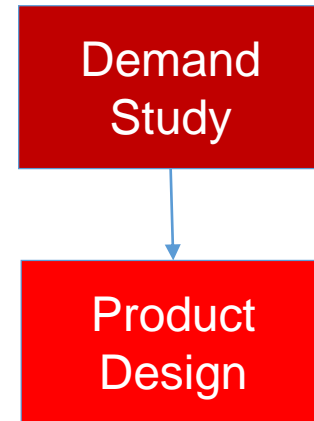
Where to start?

- Understand the needs of the target market
 - Most pertinent risks
 - Existing risk management strategies
 - Understanding of insurance
 - Frequency of visiting a bank branch

Demand
Study

Microinsurance Product Design

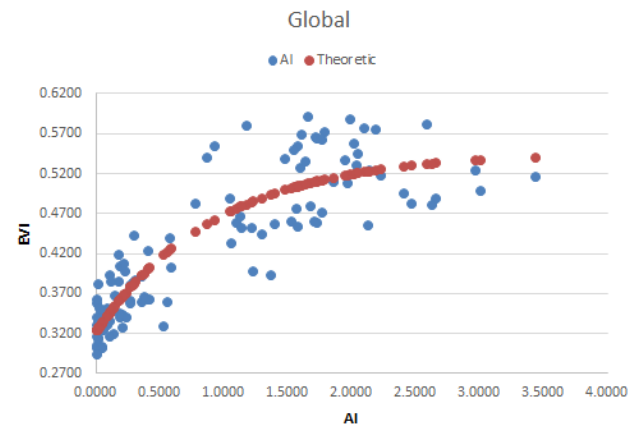
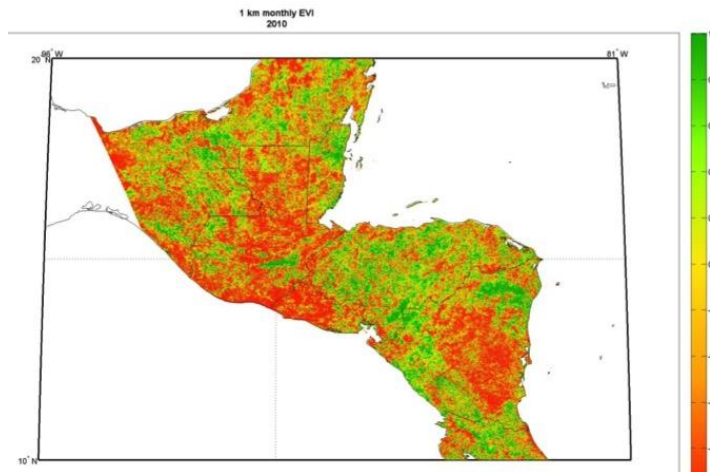
- Parametric Insurance
 - Creating a climate index
 - Understanding the correlation between the index and the damages
- Designing the microinsurance
 - For which events is the coverage needed
 - Capacity to pay
 - Maximising the coverage given the capacity to pay



Microinsurance Product Design

Drought

- Use of a vegetation index measured by satellite
- Vegetation index has a strong correlation with the indices that represent the occurrence of a drought



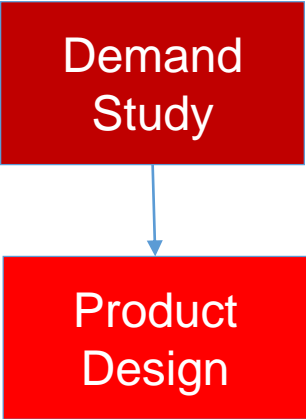
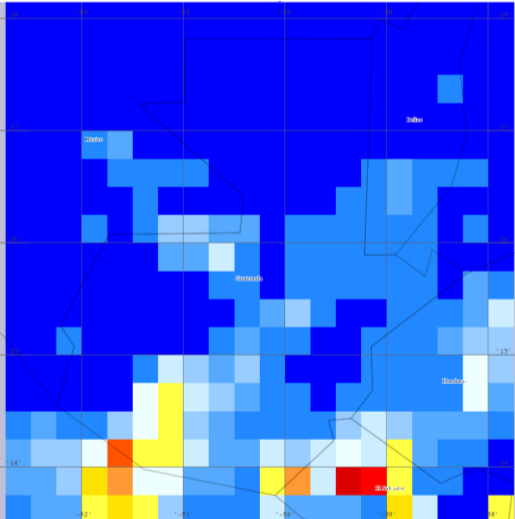
Demand Study

Product Design

Microinsurance Product Design

Excess Rain

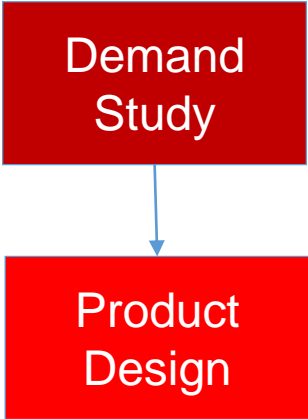
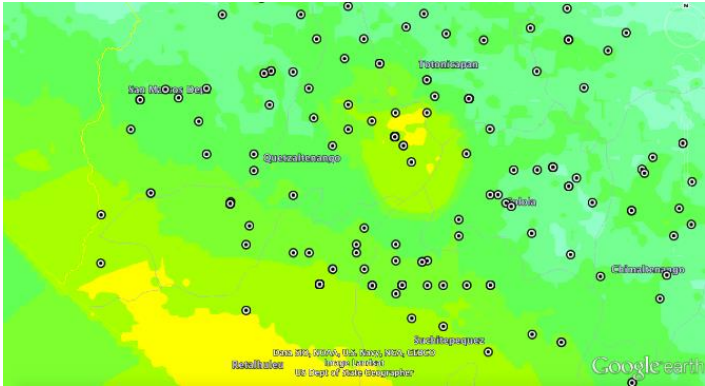
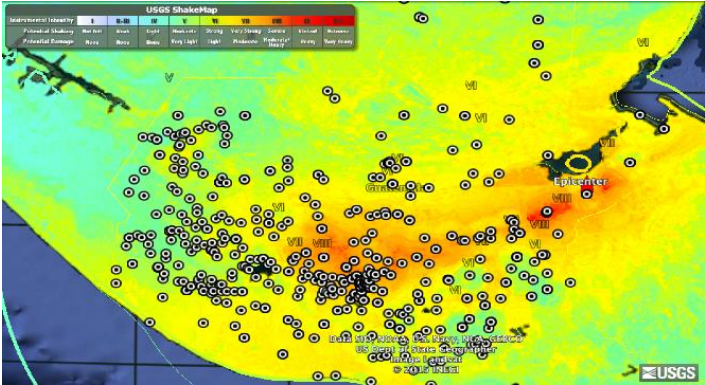
- Measured by a satellite that uses radars, microwaves and infrared imaging to analyse the clouds and estimate precipitation



Microinsurance Product Design

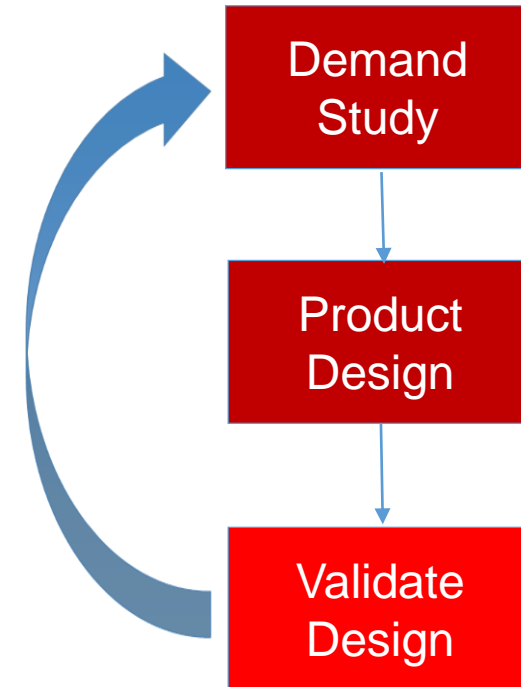
Earthquake

- Uses the Mercalli scale and the “ShakeMaps” product (USGS) to measure the earthquake shaking intensity



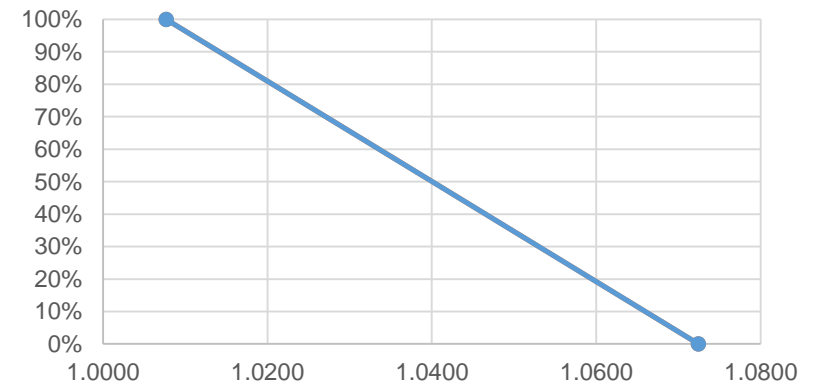
Microinsurance Product Design

- Validate the technical and conceptual design with:
 - Local Partners
 - Reinsurer
 - **Clients**
- Regulatory approval



MiCRO – The Solution

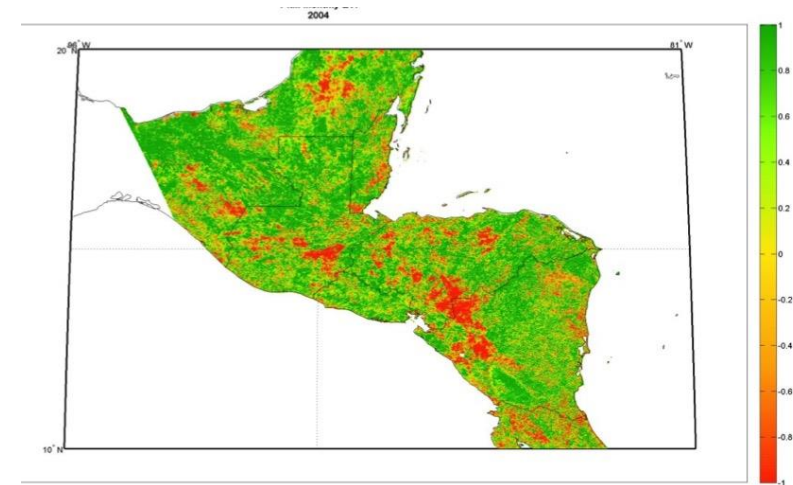
- Linked to credit
 - But it could also be savings or remittances
- Parametric insurance
 - » Fast payouts
 - » No need for loss adjustment



MiCRO – The Solution

Use of technology

- Mobile phones –
 - to send information and climate data
- Satellite
 - To determine payouts for drought and excess rain





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