



GIRO conference and exhibition 2011  
Purvi Shah and Doug Lacoss

# Tackling poverty

## One insurance policy at a time

11-14 October 2011

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# Workshop overview

- What is Microinsurance?
- Microinsurance Working Party
  - Actuarial Toolkit
  - Research
- Microinsurance Perspectives:
  - Commercial Insurers in microinsurance
  - Regulation of microinsurance
- Get involved

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# What is Microinsurance?

## IAIS definition

- Not a specific product or product line
- Not limited to a specific provider type
- Provision of cover to a specific market segment
- i.e., **low-income persons.**
  - ~ *IAIS Issues Paper (2007)*



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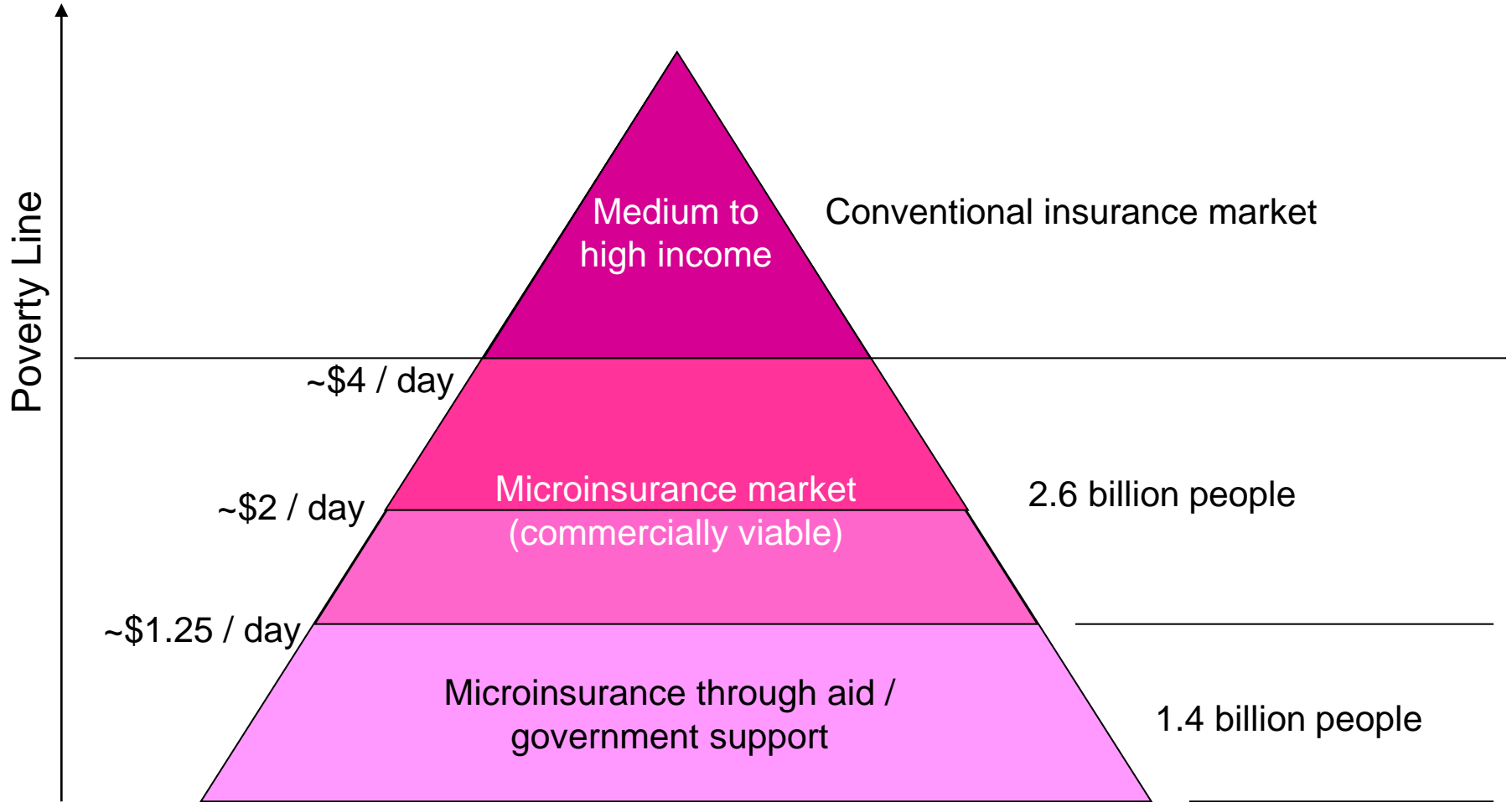
# What is Microinsurance?

## Risk management

- Risks faced by the poor:
  - Weather
  - Health & accident
  - Death of sole breadwinner etc.
- Informal risk management techniques exist:
  - Buffer stocks, community support, diversifying
  - Migrating, selling assets, forgoing education

# What is Microinsurance?

## Global context



Source: Swiss Re, sigma 6/2010, "Microinsurance – Risk protection for 4 billion people"

# What is Microinsurance?

## Common features – Product design

- Adequate cover vs affordable premium
  - Low net worth
  - Specific perils
- Simplicity!
- Risk management elements
  - Demonstrate value in absence of claims



# What is Microinsurance?

## Common features - Distribution

- Often group based
  - e.g. women's associations, trade unions
- Often linked to microfinance loans, access
- Often community based- advantages
- Some innovative channels emerging e.g. mobile phone





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# What is Microinsurance?

## Business models

- Insurer
- Mutual
- Government involvement
- Captive
- Reinsurance
- CAT Bonds
- Pooling

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# What is Microinsurance?

## Challenges faced

- Understanding / trust in insurance
- Marketing, collecting premium
- Inaccessible regions- market barriers
- Anti-selection, Moral Hazard
- Verifying valid claims
- Legal & regulatory environment
- Poor infrastructure- healthcare facilities
- Profitability.

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# Microinsurance Working Party

## Introduction

- Started in 2009 with 6 members
  - Published Crop Microinsurance paper
  - Won the Brian Hey Prize at GIRO 2010
- Currently in its second year
  - More than 20 active members
    - From UK, USA, West Africa, Mexico, Caribbean, Jordan, Pakistan, India etc
  - Developed links with various organisations:
    - ILO, Oxford University's Centre for Insurance & Poverty
  - Opportunities to get involved in ad-hoc projects
  - Working on the Actuarial Toolkit

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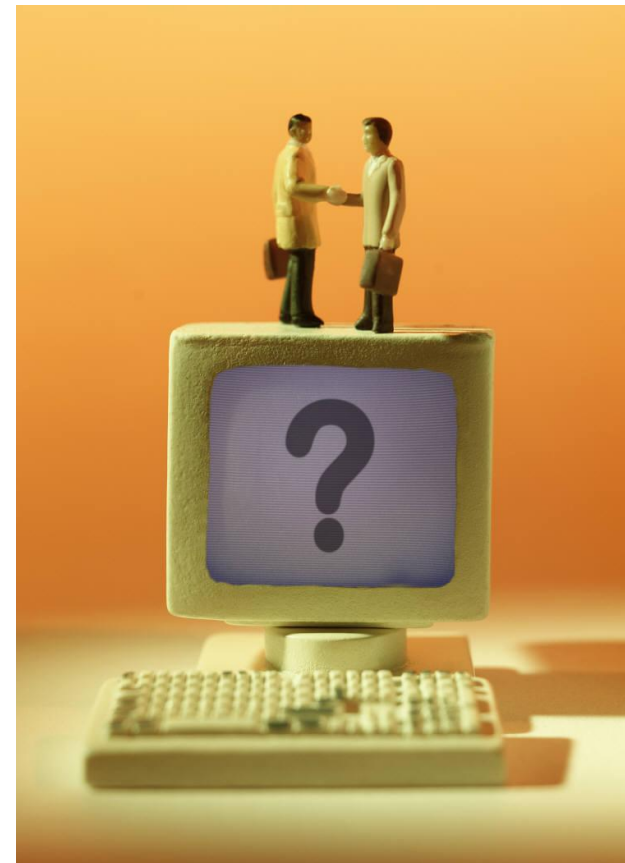
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# Microinsurance Working Party

## Actuarial Toolkit

- A public good
- To educate microinsurance practitioners in actuarial techniques
- 3 sections:
  - A: Reference Library
    - Literature relating to microinsurance
  - B: Examples
    - “How-to” guide in spreadsheet form
  - C: Case studies
    - Information on successes, educational situations



# Microinsurance Working Party

## Actuarial Toolkit

- Section B – Spreadsheet
  - Illustrative Calculations
    - Detrending
    - Credibility



# Microinsurance Working Party

## Actuarial Toolkit

### Detrending

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Area-average yield for subdistrict Mahuva (kg/ha)	1073	867	1399	597	1463	1929	2061	2176	2270	1997
Claim payment rate at <b>1700</b> for Mahuva using raw yield data	37%	49%	18%	65%	14%	0%	0%	0%	0%	0%
Area-average yield for subdistrict Mahuva, after removal of linear detrending of 95kg/ha/year (kg/ha)	2023	1722	2159	1262	2033	2404	2441	2461	2460	2092
Claim payment rate at <b>1700</b> for Mahuva using detrended yield data	0%	0%	0%	26%	0%	0%	0%	0%	0%	0%





# Microinsurance Working Party

## Actuarial Toolkit

### Credibility

Weighted Average Yield for District

2,464

Z =

0.3

Insurance Unit (I)	Average Yield for Insurance Unit (III)	Credibility Weighted Average Yield (IV)
Jamnagar	3,069	2,646
Dhrol	2,775	2,558
Jodiya	1,256	2,102
Kalavad	1,975	2,318
Lalpur	2,979	2,619
Jamjodhpur	2,931	2,604
Kalyanpur	2,049	2,340
Khambhalia	2,064	2,344
Bhanvad	2,421	2,451

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# Microinsurance Working Party

## Research – Carbon Markets

- The objective of the paper is to discuss theoretically how carbon credits generated by a project activity can be used to fund a microinsurance policy for participants within the project activity
- The paper is being created to serve as an introductory paper to the concept



# Microinsurance Working Party

## Research – Carbon Markets

- A carbon credit generating project could benefit from microinsurance in two ways:
  - It could de-risk the project
  - It could lead to the generation of additional carbon credits



# Microinsurance Working Party

## Research – Carbon Markets

### De-risking a Project

- Carbon credits are generated by a project, which can be sold on the carbon markets
- A microinsurance policy could be sold to participants within the project, thus de-risking the project
- This will de-risk the project for the stakeholder with whom the risk lies
- In theory, this stakeholder would be willing to therefore pay for this microinsurance policy
  - Payment for the microinsurance policy could be funded from selling the carbon credits

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# Commercial Insurers in Microinsurance

- Who's involved?
- Product range
- Distribution channels
- The world of microinsurance
- Microinsurance at Allianz – a case study
- Profitability – key drivers

# Commercial Insurers in Microinsurance

## Who's involved?

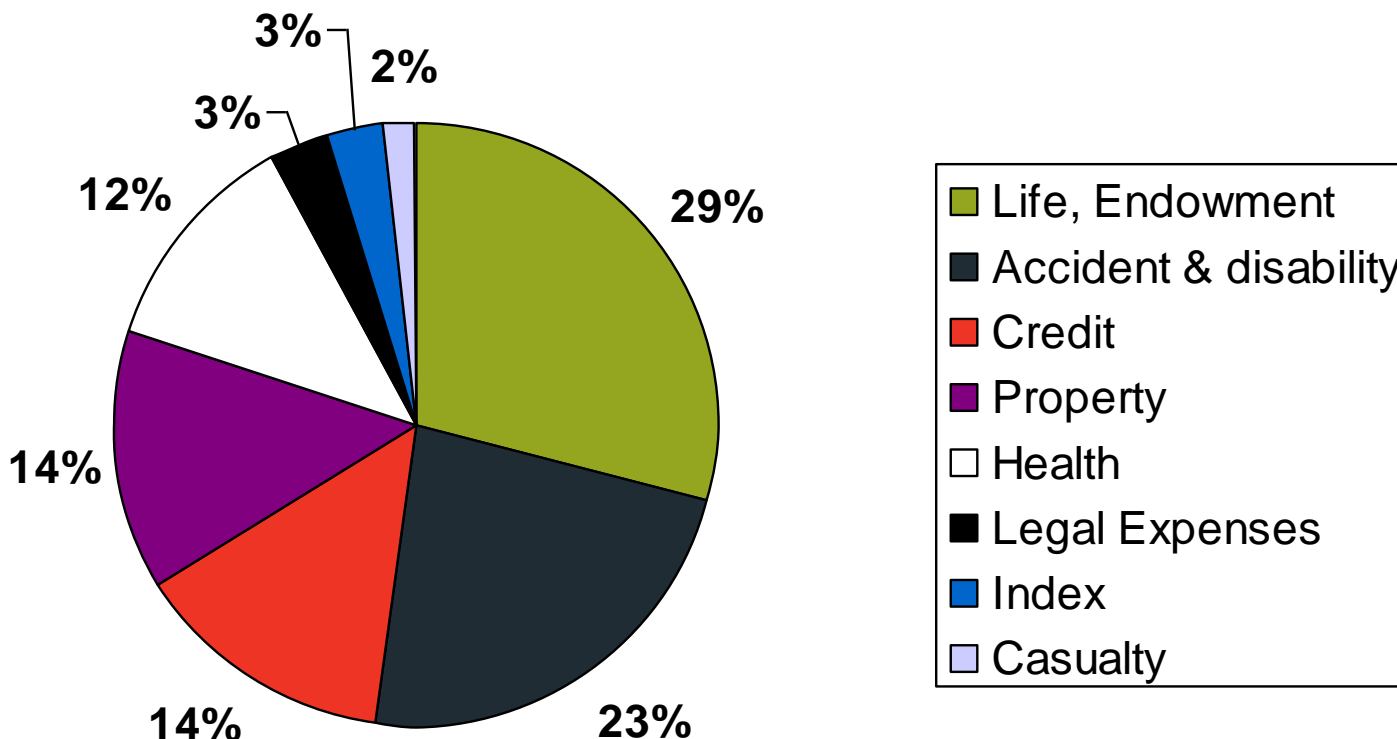
- Study done by the Microinsurance Network
- Top 50 commercial insurers in the world surveyed by the Microinsurance Network
  - At least 33 are involved
  - 8 of the top 10 are involved
- Motivation to get involved include:
  - Enter a new market
  - Profit
  - Corporate Social Responsibility
  - Brand recognition





# Commercial Insurers in Microinsurance

## Product range



### Note:

*No. of microinsurance products according to survey respondents in 2010*

*Adapted from “Commercial Insurers in Microinsurance”, Coydon, M. & Molitor, V, Microinsurance Network*

# Commercial Insurers in Microinsurance

## Distribution channels

- MFIs / banks
- Agents / brokers
- NGO
- Retailers
- Community-based organisations
- Mobile phone
- Employers
- Churches
- Cooperatives
- Funeral parlours



# The world of microinsurance

The map shows the global landscape of insurance: In developing countries, where the majority of people lives on less than eight dollars per day, insurance penetration is low. Many of these countries have large populations which are growing at high rates. Reaching out to these potential customers can open up significant markets for insurance. Allianz is already present in eight developing countries with a variety of microinsurance products.

**World population**

Each country's size on the map is proportional to the size of its population

SOURCE: ESTIMATES AND PROJECTIONS, UNITED NATIONS, 2009

**Insurance penetration**

Total business premiums collected in % of GDP in 2008

0% — 1.9%
2% — 3.9%
4% — 5.9%
6% — 9.9%
10% — 17%

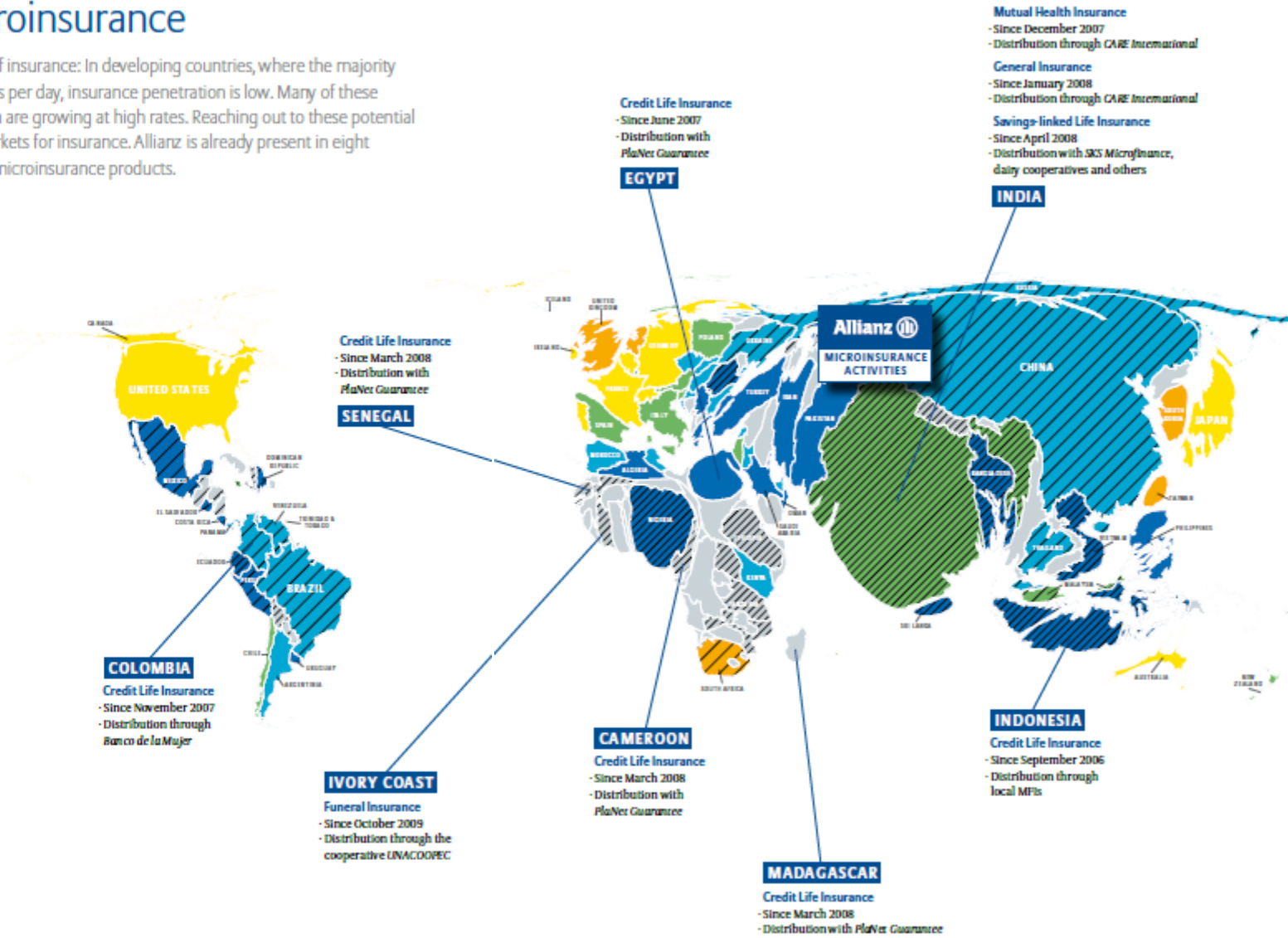
SOURCE: WORLD ECONOMIC SURVEY, INTERNATIONAL MONETARY FUND, 2009

**Share of low-income population**

Share of population earning less than \$8 per day in local purchasing power (%)

60% — 90%
90% — 100%

SOURCE: WORLD POPULATION PROJECTIONS, UNITED NATIONS, 2009



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# Commercial Insurers in Microinsurance

## Case Study – Product

- Multiple risks
  - Total or partial disability
  - Hospitalisation
  - Loss or damage to the household or other assets
  - Death
- Optional cover for spouse
- First year's premium was set at ~£0.80 pa
  - Option to cover the spouse for a further £0.60 pa

# Commercial Insurers in Microinsurance

## Case Study – Experience

- Launched in March 2008
  - Focus on coastal areas
- Sold ~64k policies in the first 9 months
- Cyclone Nisha hit in November 2008
  - Bajaj Allianz paid 16,000 claims in 44 villages
  - Loss ratios ~ 1000%
  - Demand for insurance increased
- Further development
  - Raised the premium to ~£2.50 pa
  - Expanded in non-coastal areas



# Commercial Insurers in Microinsurance

## Profitability – Key drivers

- Profit contribution per policy
  - Premium income
  - Cost per claim
  - Number of claims
- Volume
  - Reach
  - Effectiveness
- Operating costs
  - Premium collection
  - Claims settlement



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# Regulation of Microinsurance

- Background
- Barriers to formalising Microinsurance institutions
- Barriers to formalising distribution
- Macro-level barriers
- Country example: India



# Regulation of Microinsurance

## Background

- From the microinsurance compendium
- Aims of regulating insurers
  - Protecting policyholders
    - ensuring solvency of insurers
    - against mis-selling, improper claims handling & poor complaints handling
  - Developing insurance markets
- Regulatory environment for microinsurance
  - Push for more inclusive financial systems
  - Informal nature of microinsurance
  - Implications of the lack of a regulatory framework

# Regulation of Microinsurance

## Background (cont.)

- Regulators becoming more interested in microinsurance
- But face many barriers:
  - Lack information and experience
  - Other priorities
  - Non-traditional providers not considered to be in insurance sector
- Face decision:
  - Formalise the informal schemes, OR
  - Shut them down, OR
  - A middle ground?



# Regulation of Microinsurance

## Barriers to formalising microinsurance institutions

- High capital requirements
  - Make it unaffordable
- High requirements for key management
  - Difficult - lower salaries and fewer career options
- Complex reporting requirements
  - Increases costs
- Requirement to have an actuarial review
  - Lack of actuarial resource / increases costs
- Premium tax
  - Make it unaffordable



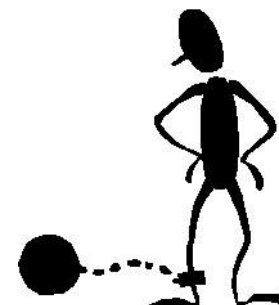
# Regulation of Microinsurance

## Barriers to formalising distribution

- Alternative distribution channels difficult to regulate
  - Restrictions can hamper market development
- Licensing requirements for agents / brokers
  - Undermine efficiencies from selling through loan officers etc.
- Restrictions on amount of agency commission
  - High cost structures justified as customers hard to access
- Policy wording requirements
  - Clients often illiterate
- Tariff regimes
  - Can hamper innovation and competition



**TERMS  
&  
CONDITIONS**



# Regulation of Microinsurance

## Country example: India

- Regulator wants to promote microinsurance
- “Quota system”
  - Each insurer obliged to write in ‘poor’ areas
- Introduced definitions for microinsurance products
  - E.g. for non-life, the sum insured between INR 5-10k
- Product parameters subject to actuarial sign-off
  - “File and use” requirements
- New intermediary created – the microinsurance agent
  - Code of conduct introduced
  - Reduced training requirements



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# Get Involved

- 40 actuaries for 4B people
- Continue Development of Toolkit
  - Reserving
  - Profit margins
  - Cashflows
- Research Projects
- Microinsurance Projects



**YOUR PROFESSION NEEDS  
YOU**

# Summary

- Microinsurance - specifically serving the poor
- Wide range of microinsurance schemes
- Actuaries can help!
  - Actuarial Toolkit
- Research
  - Carbon markets
  - Other ideas wanted
- Commercial viability – it's early
- Regulation is evolving
  - Proactive approach in India has had a positive impact
- You can get involved



# References

## **Commercial Insurers in Microinsurance:**

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# Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

