

# **Agricultural and Catastrophe Insurance**

Overview, Challenges and Prospects  
SDC Savings and Credit Forum  
Berne, September 13 2013

# Rural Population and Smallholders

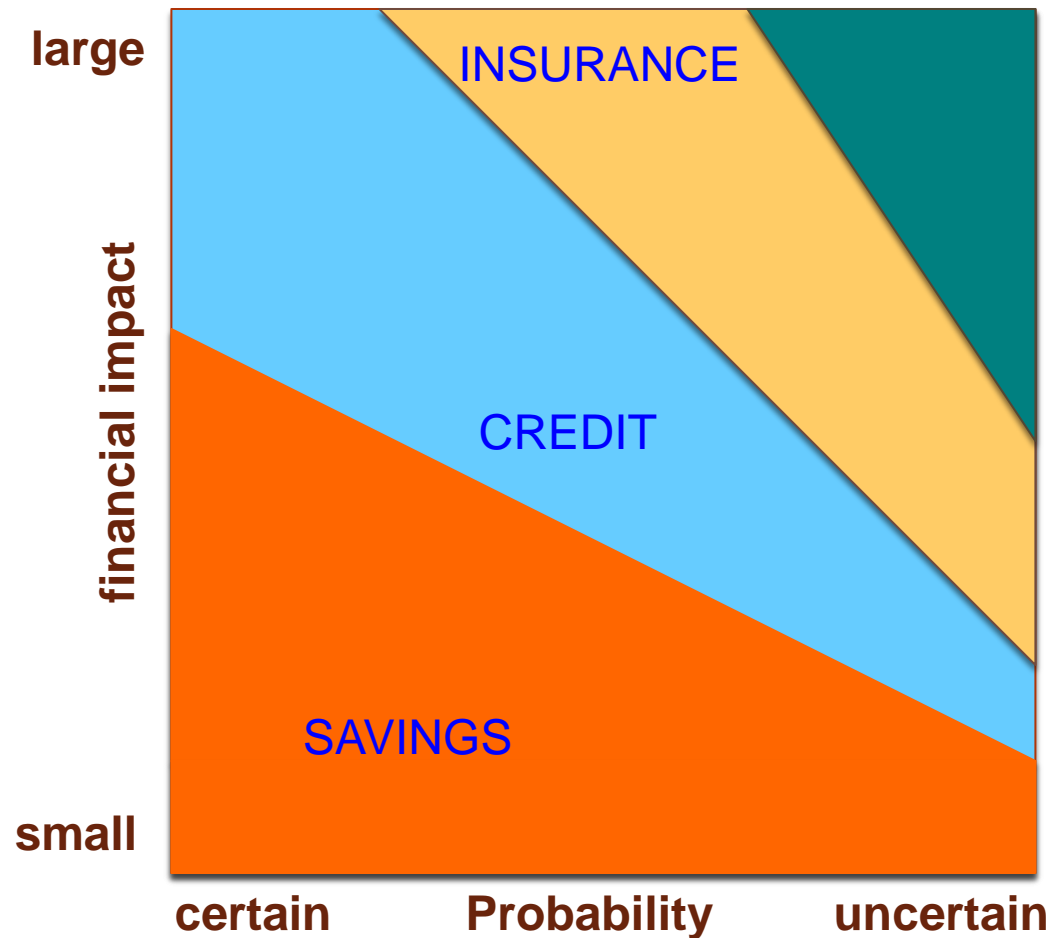
## Globally:

- 48% of world population considered rural
  - 21% in Latin America
  - 71% in LDCs
- 500 million smallholder households
- 2 billion people depend directly on agriculture
- Poverty reduction: growth in agricultural GDP up to 4x more effective than growth in other sectors

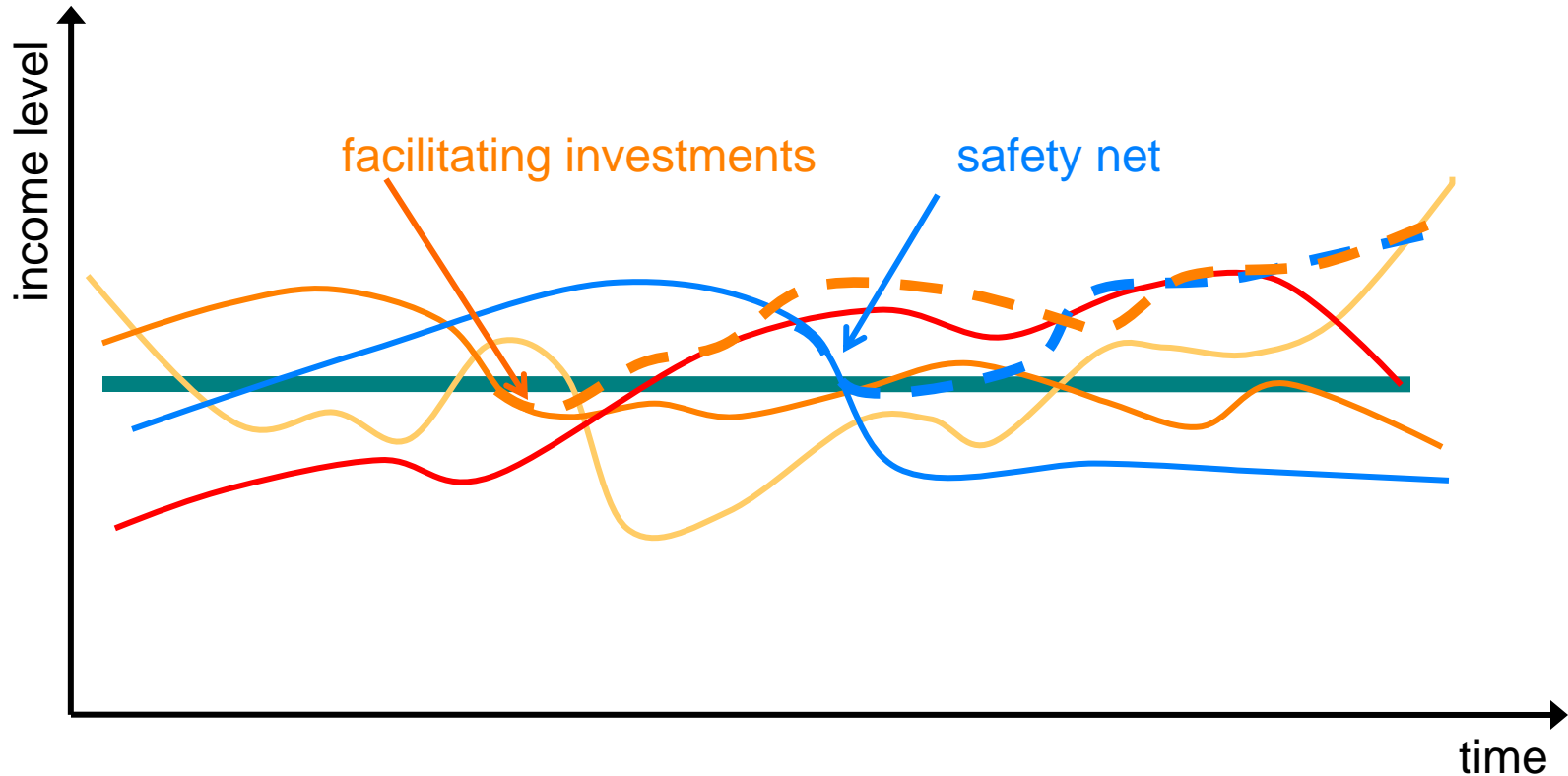
# The place for microinsurance

How do people deal with risk?

Insurance:  
provides safety-net, kick-starts development, pays back multiple of premium in case of emergency, no



# The rationale for microinsurance



# Agro Product Design

## **Traditional Insurance**

- Farm-specific contract
- On-site loss appraisal
- True insurance
- High transaction costs
- Prone to moral hazard and fraud

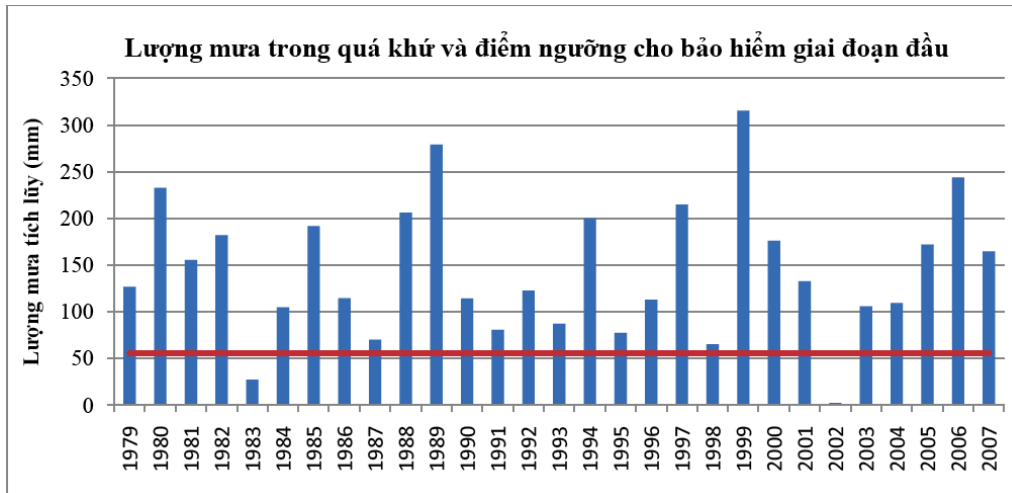
## **Parametric:**

- Uniform product
- Central loss calculation
- De-correlation loss / actual payout
- Low transaction costs
- Moral hazard & fraud eliminated

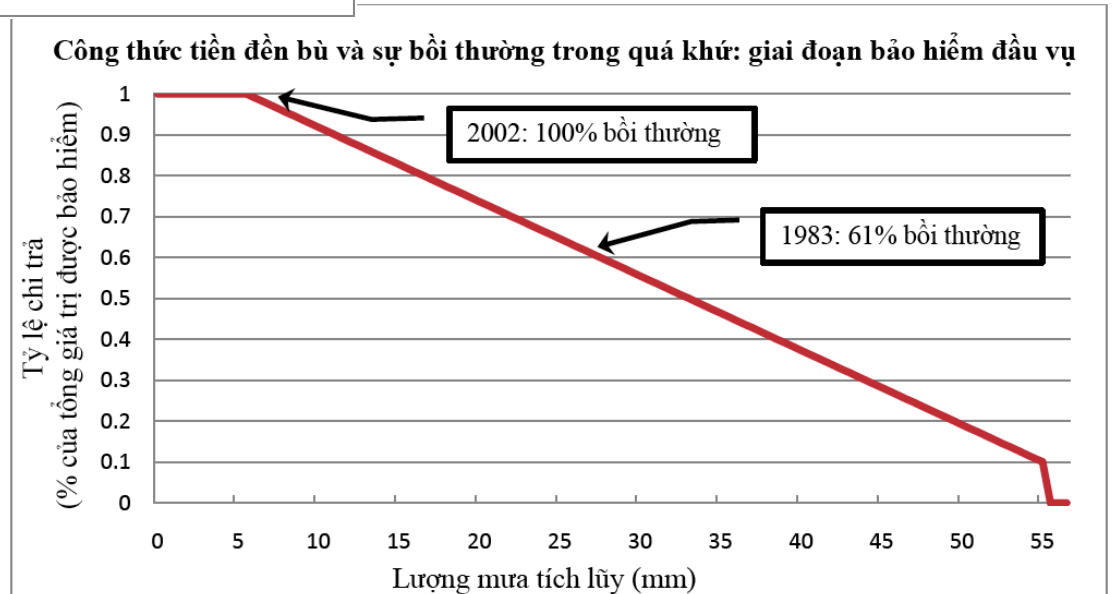
# A primer on index insurance

- Measures a proxy for farm yields, not individual losses
- Typical proxies:
  - **Climatic phenomena**, such as rainfall, temperature
  - **Peers** in similar situation: yield, mortality
- Measurement: on the ground or remote sensing
- Claims pay-out depends on data measurement, not on actual loss
- All insured get the same pay-out per insured unit

# Rainfall Index in Vietnam

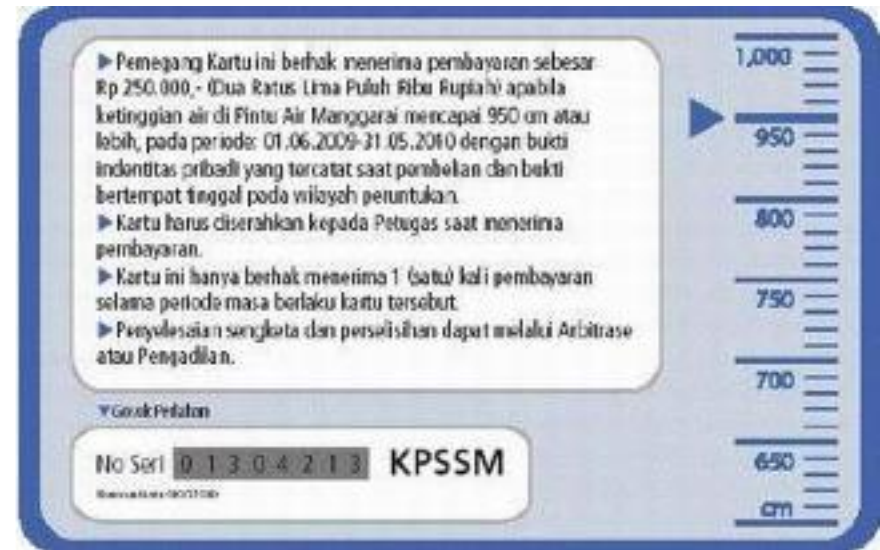


Source: Bao Minh / GlobalAgRisk



# Catastrophe Insurance

- Jakarta Flood Index
- CLIMBS Philippines
- El Niño Peru
- MiCRO





# Challenges in Index Insurance

- High set-up costs
- Basis risk: imperfect correlation between individual farmer's result and index
  - technical (imperfect index – pest, fire etc)
  - Spacial (micro-climates!)
  - Temporal (vegetation season)
- Historical meteorological and yield data
- Marketing: how to explain to a small-holder?
- Potentially: regulation

# Emerging Insights

- index based, stand-alone products meet very limited demand. Possible reasons:
  - client's understanding
  - basis risk
  - insurance alone as poor value proposition
- working through aggregators looks more promising -> strengthen farmer organisations!
- significant shortcomings in local capacity and institutional frameworks

# Outlook on Agri / Cat-Insurance

- Concerns over food security and climate change
- Renewed interest in agriculture and specific donor interest in rural / agricultural microinsurance
- Focus on more holistic farm approaches
- Integrated risk management strategies
- Focus on index-based products, though success stories are rare
- Focus on aggregators, such as cooperatives, input suppliers, contract farming, rural lenders

# THANK YOU

