

Agriculture
MicroInsurance – a
business or a charity?

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Global Reinsurance

Allianz 

Microinsurance, Business & Charity

MicroInsurance

- Microinsurance is a financial arrangement to protect low-income people against specific perils in exchange for regular premium payments proportionate to the likelihood and cost of the risk involved.

Business

- A **business** is an organizational entity involved in the provision of goods and services to consumers. Businesses may also be social non-profit enterprises or state-owned public enterprises charged by governments with specific social and economic objectives.

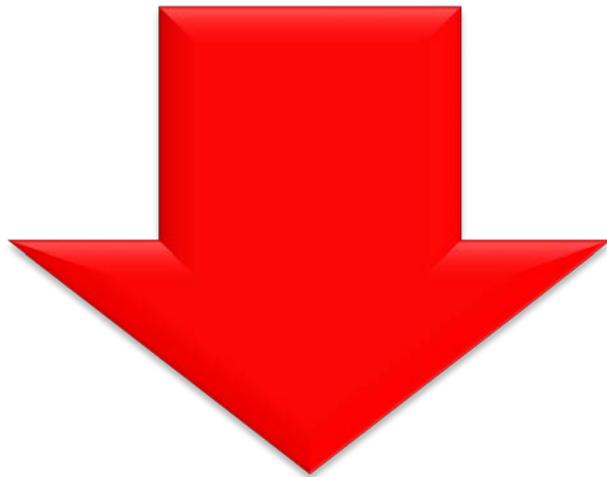
Charity

- the voluntary giving of help to those in need, as a humanitarian act.

Insurance vs Charity

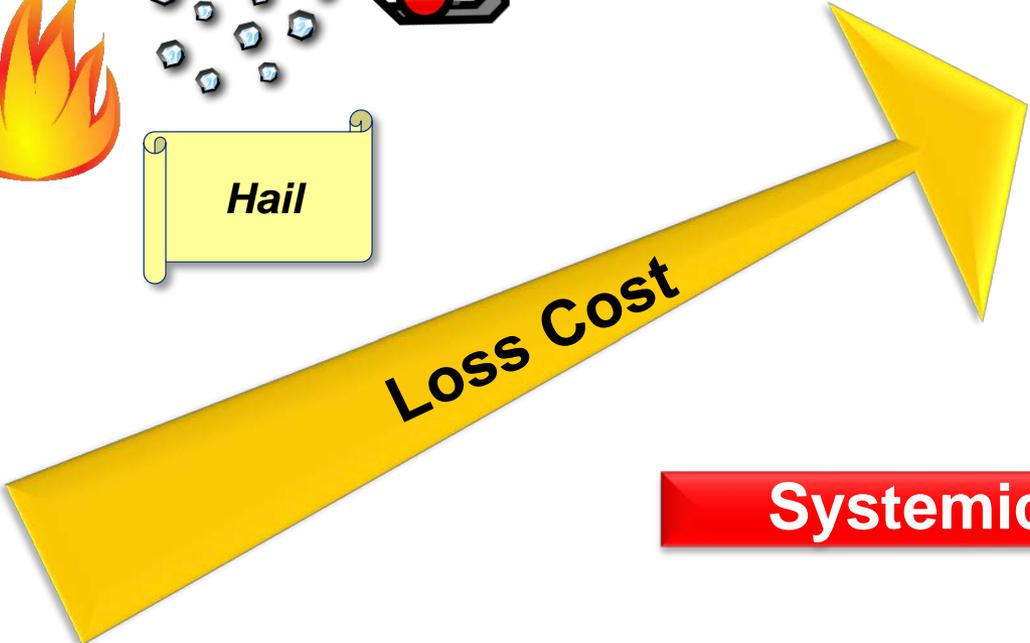
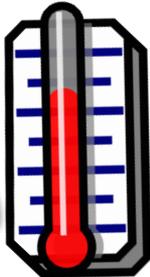
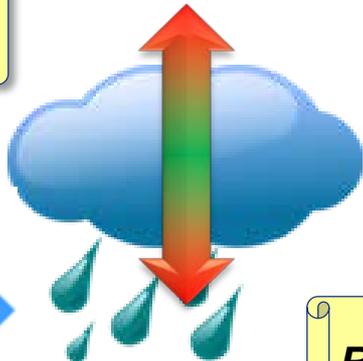
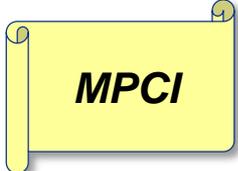


Risk Management –
Smooth out the retained
risk with insurance, but
for who, banks, tenured
farmers?



Charity – defiance in the
face of risk, rely on third
party actors, handouts,
good for media coverage,
hard to quantify benefits.

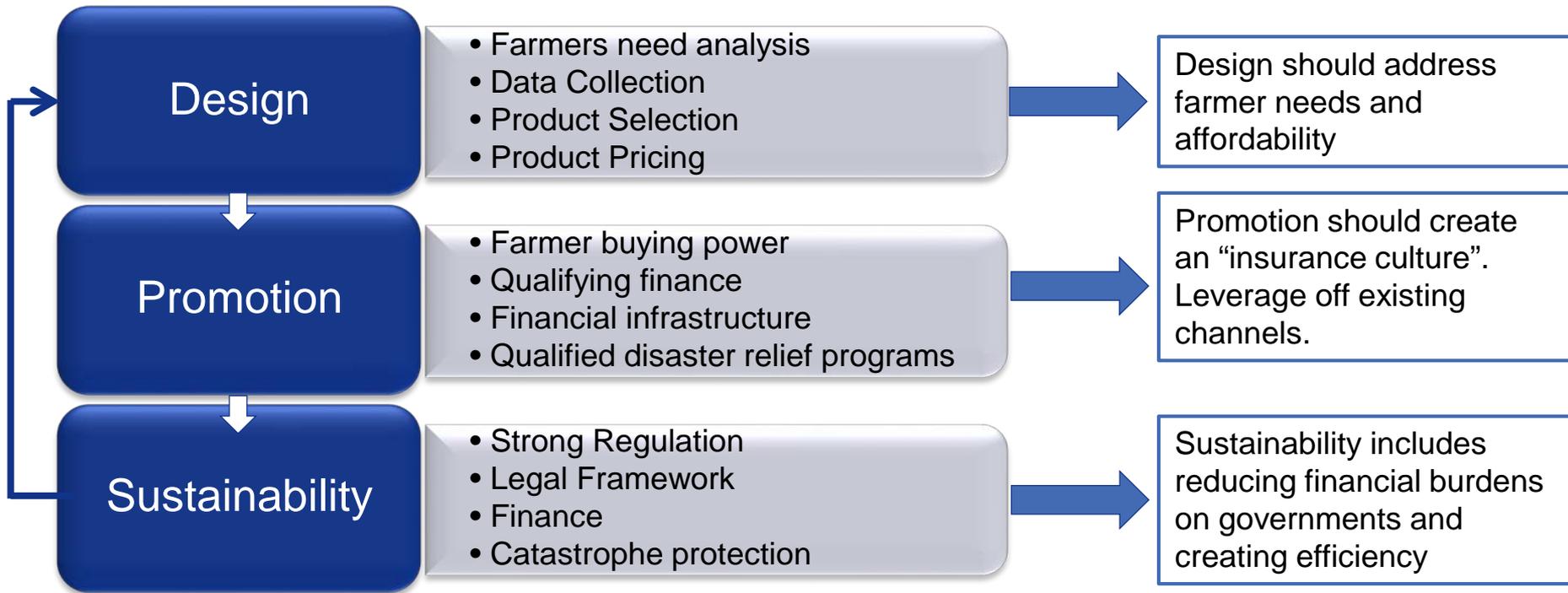
Spot loss vs Systemic Loss



Level of subsidisation

Country	Agriculture as % of GDP		Rural Population as % of total		Agriculture support as % GDP	Insurance as a % of agriculture support	Agriculture Insurance support as % of GDP
	1970	2012	1970	2012			
India	41	18.2	80.2	68.4	3.1%	0.3%	0.009%
China	35.2	9.53	82.6	48.1	3.2%	1.6%	0.051%
USA	2.3	1.24	26.4	18.9	0.4%	10.15%	0.041%
Canada	≈5.0	1.76	24.3	18.7	0.4%	22.51%	0.090%
Indonesia	44.9	13.3	82.9	48.5	4.6%	0.06%	0.003%
Vietnam	40.2	17	81.7	68.3	0.5%	1.11%	0.006%

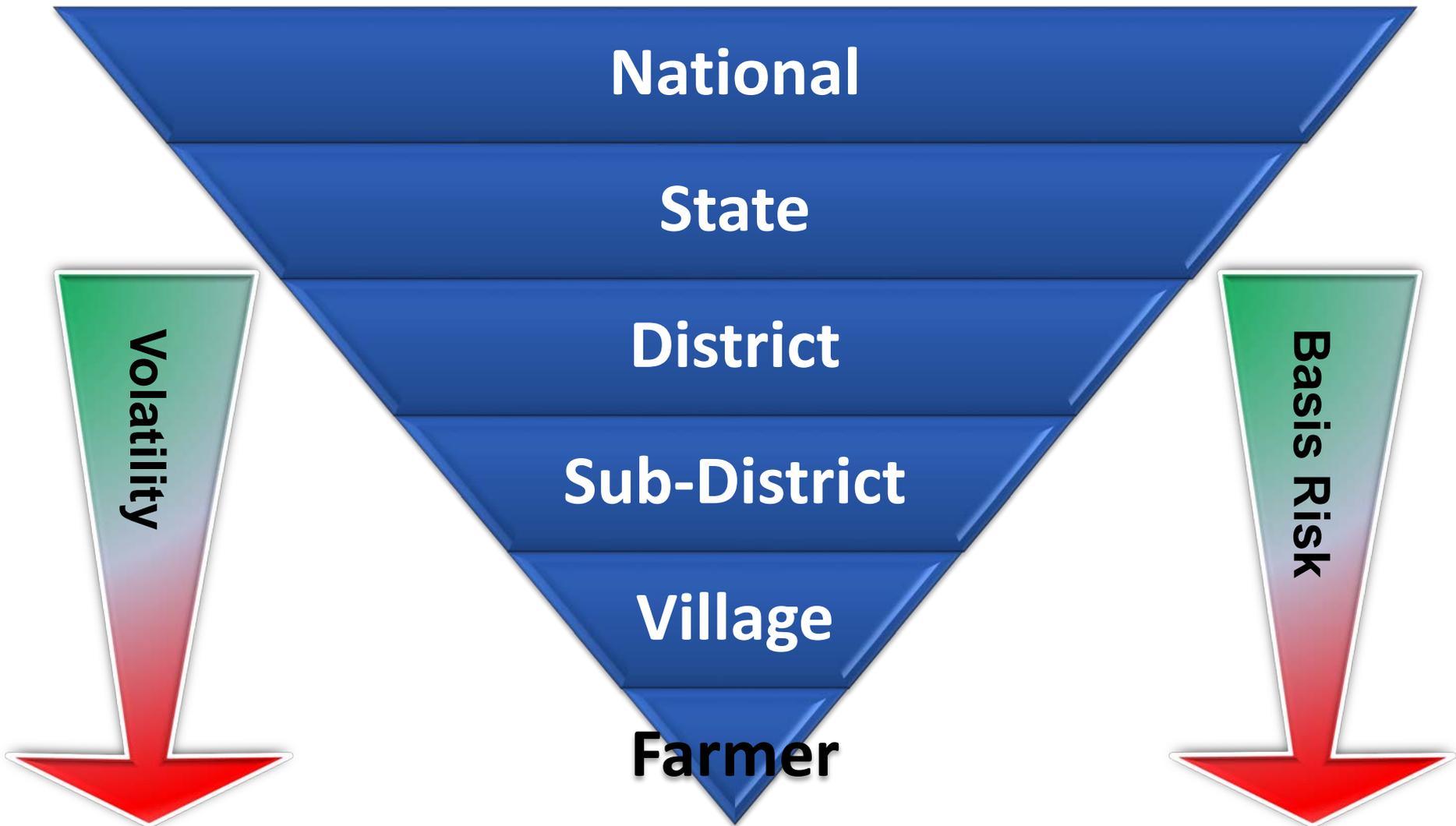
Components of support in agriculture insurance



The key role of the **Public** entities in each of the 3 components is to address the systemic component of agriculture risk and smooth the informational asymmetries to ensure a thriving agricultural market

The Key role of the **Private** entities in the above 3 components is to bring efficiencies and harness commercial goals

Micro or Macro basis risk



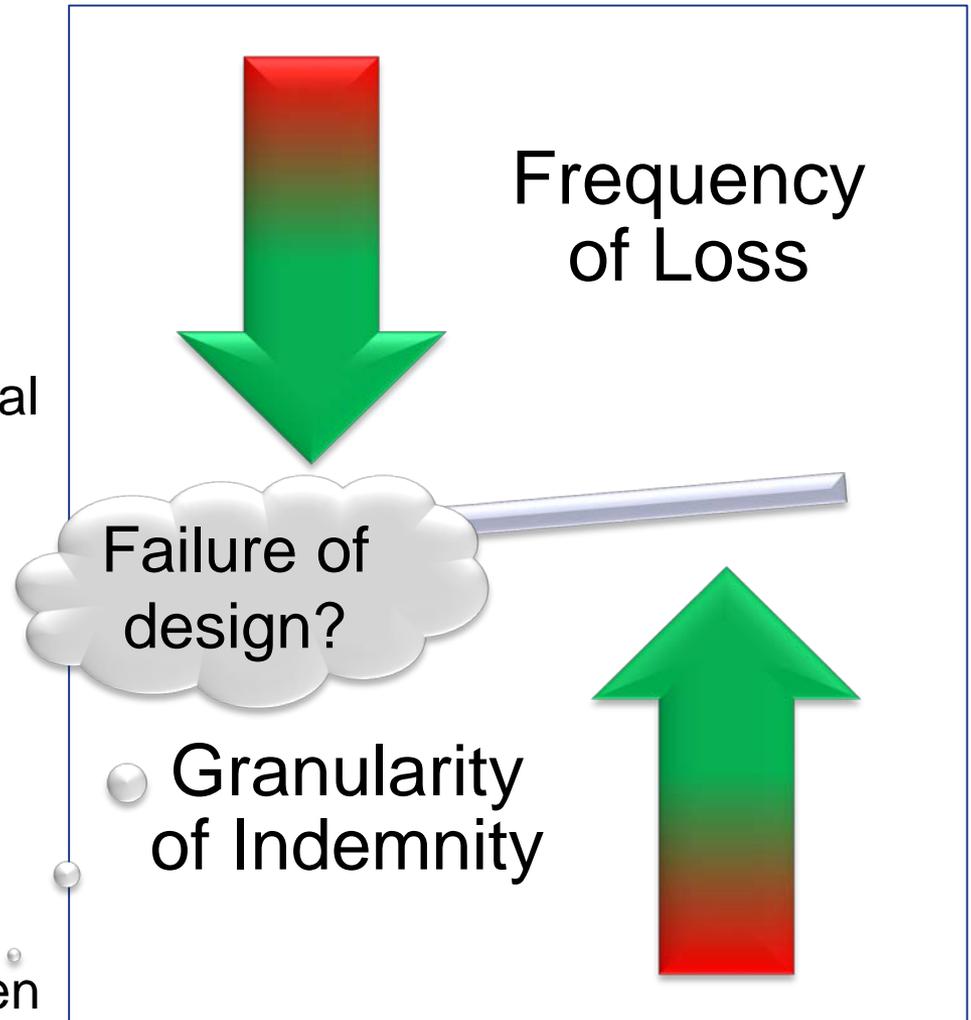
Frequency vs Granularity

Motorcycles:

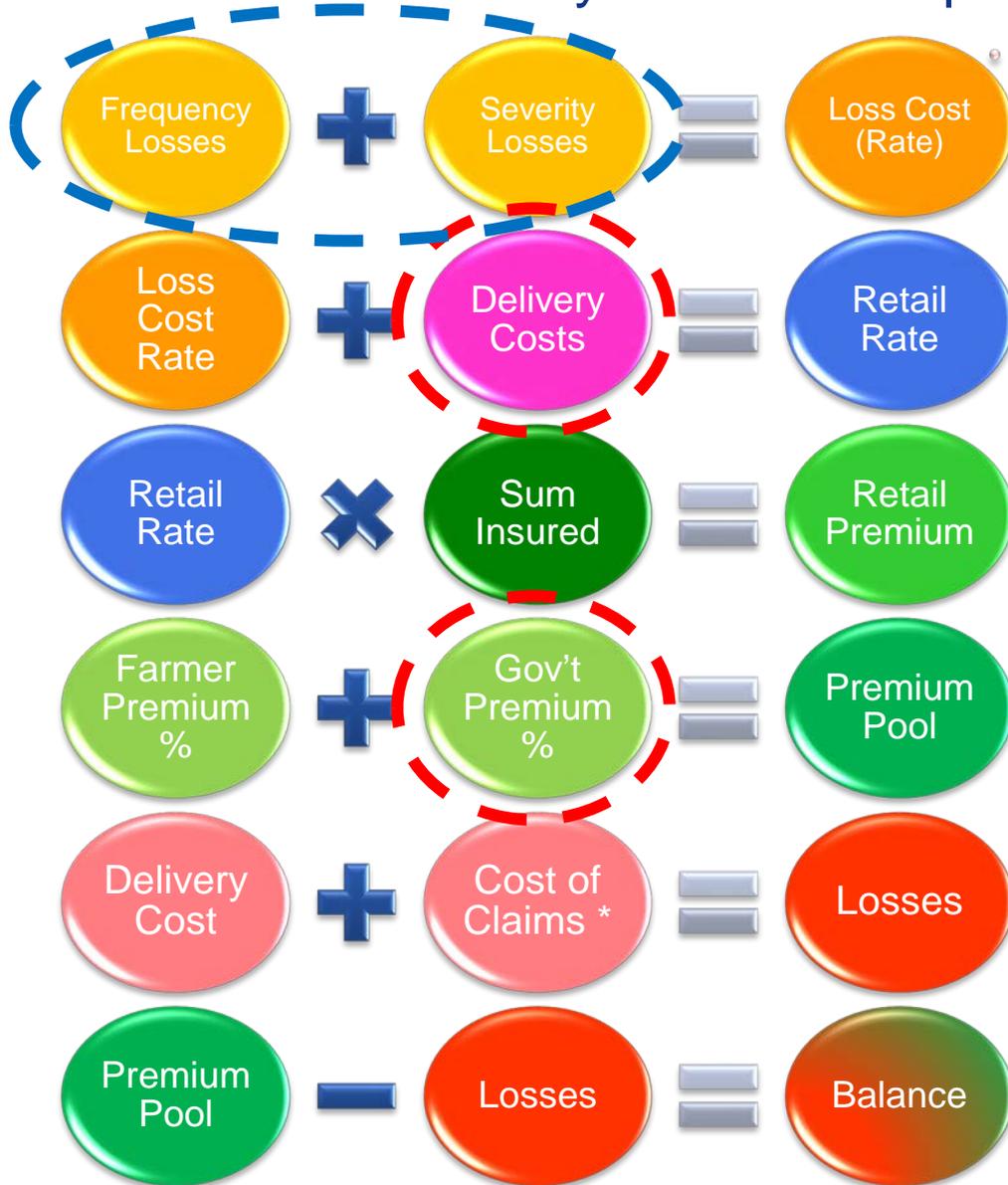
- Value: 200,000
- Rate: 8%
- Policy holder: Owner
- Indemnity: Real/physical
- Loss Frequency: One in Ten

Area Yield cover:

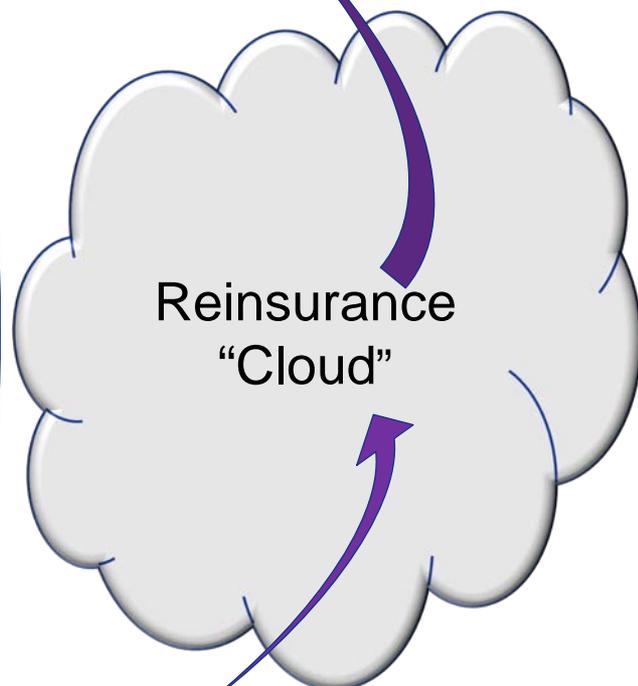
- Value: 200,000
- Rate: 8%
- Policy holder: Bank
- Indemnity: Area Yield
- Loss Frequency: Three in Ten



Insurance – its really not that complicated!!



Data – historical & current drives design



* Includes loss assessment expense

Excessive rate smoothing

Example is Thailand National Disaster Scheme for Rice.

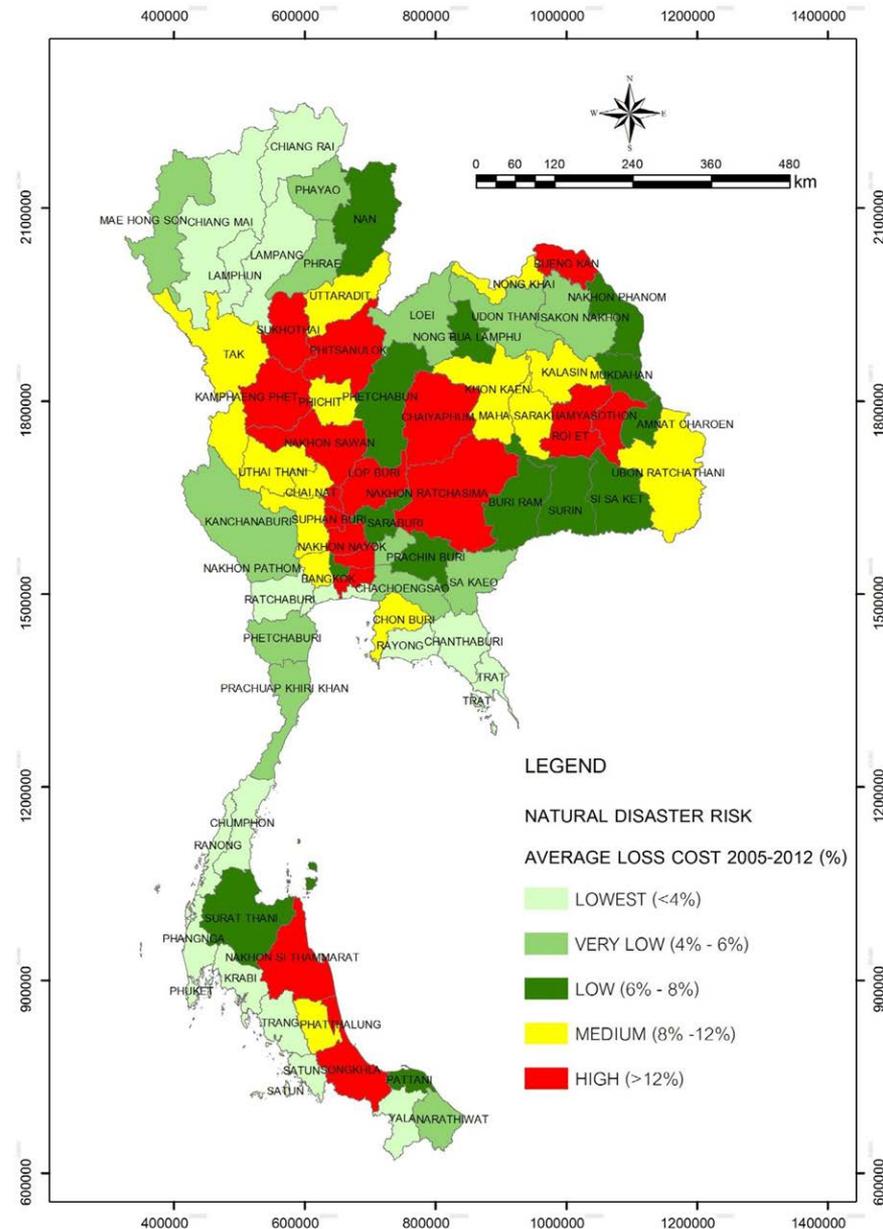
- Average loss cost for lowest zone is 2.91%
- Average loss cost for highest zone is 15.63%

Despite wide variance in risk zones parallel insurance program is flat rated across country

Creates dis-incentive for farmers in low risk zones and encourages take-up in high risk zones – antiselection

Saving factor in 2016 is that insurance for loanees is free (quasi compulsory).

If not compulsory program would become unbalanced and unsustainable



Basis Risk in index insurance – works both ways!



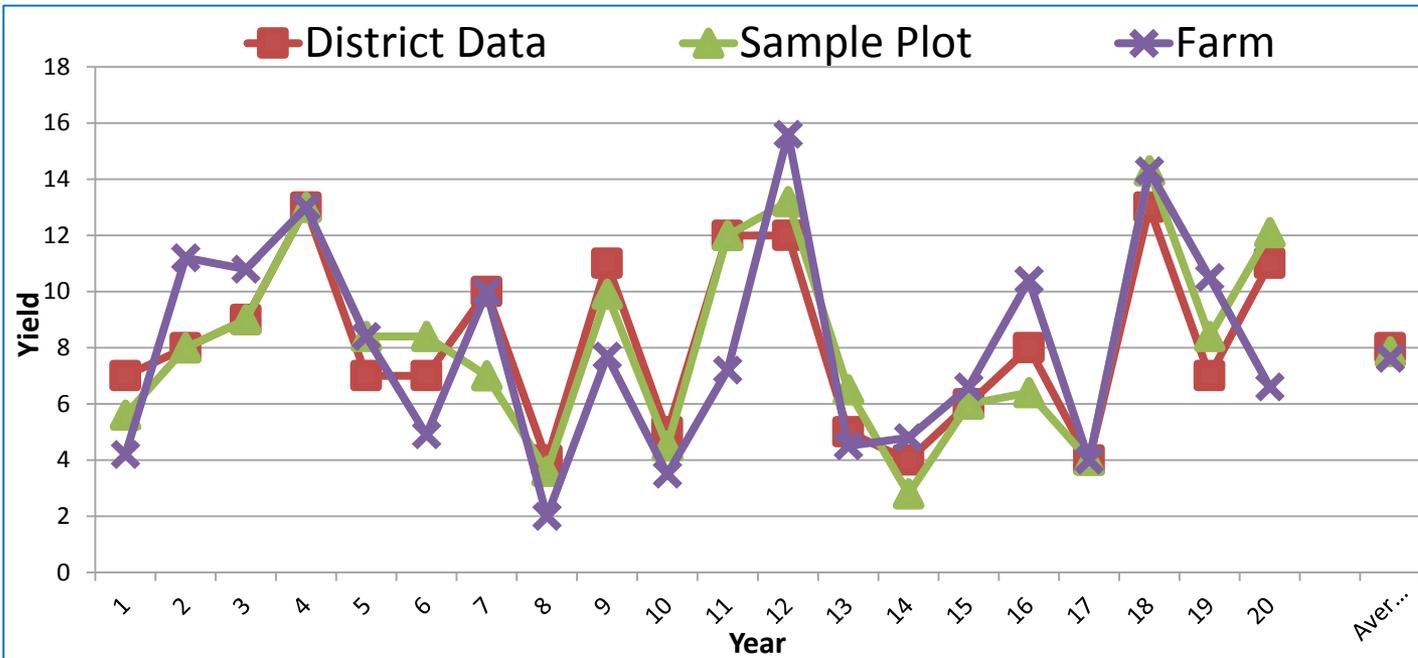
Historical yield data at District level – drives loss cost & rates



Current season indemnity yield data at Village level – drives loss settlement



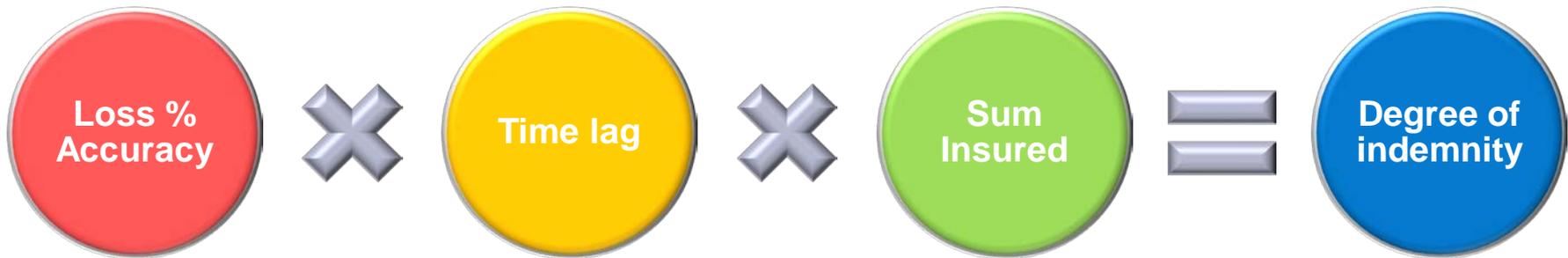
Actual loss occurs at farm level – drives farmers income & livelihood



Loss Cost at 80% coverage	
District	6.38%
Village	7.30%
Farmer	10.37%

Rice image: NGMN Plant

Claims: Not just the dollars



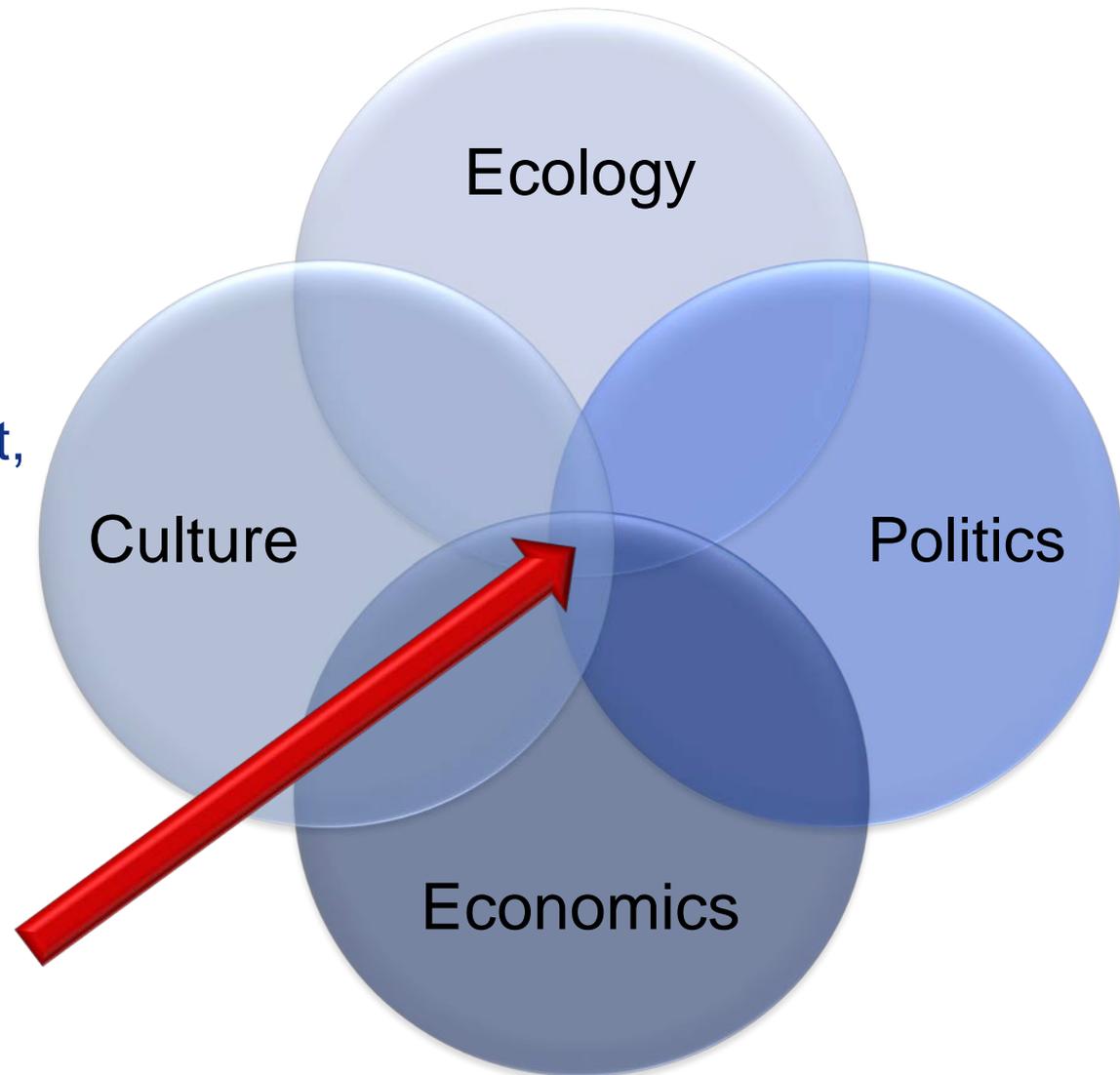
- Accuracy of loss assessment is critical but not sacrosanct
- Farmers need confidence in and transparency of loss assessment process
- Ideally claim settlement period should mirror cash flow from undamaged/harvested crop or sold animals (temporal indemnity)
 - If cash crops – in time to replant/plant next season
 - If subsistence farming – quick enough to put food on table
- Sum insured should be meaningful – ability to rebound from losses and continue farming

The solution/design should be sustainable

* Sustainability: the endurance of systems and processes.

The organizing principle for sustainability is sustainable development, which includes the four interconnected domains:

- Ecology,
- Economics,
- Politics, and
- Culture.



In conclusion.....is it “insurance”



- Be aware of all the stakeholders
- Insurance is “**after**” management and resilience
- Can’t compete with free handouts
- Rates \approx relative risk, don’t distort the truth
- Get quality data, protect against the unexpected
- Basis risk can (& often does) bite both ways
- Insurance = a promise to pay, make it a good one
- **Failure prejudices consumers for future purchases**



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