Customized Community-Based Microinsurance for Climate-Related Risks

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Dr. David Dror

Outline

- Challenges of existing microinsurance schemes to address health, crop, livestock and natural catastrophe risks
- Community's need for customized microinsurance
- MIA's experience with community-based microinsurance and climate-related risks

Climate-Related Risks

Climate-related risks

- Associated with range of hazards
  - slow onset (e.g. increase in average temperature)
  - Or suddenly (extreme weather events)
- Unequally distributed
- Resource-poor communities in developing countries suffer most
- Affect human health, agriculture, livestock, assets, livelihood in general of individuals, families and communities

What is Climate Change?

Climate Change

- Change in long-term weather patterns / distributions
  - E.g. mean or variance/variability of certain weather parameters
  - Statistically significant
  - Any cause e.g. natural internal processes, external forcing, anthropogenic
- Alters risks
- How to distinguish climate trends from normal fluctuations?

Climate Risk Example: Floods in Bihar

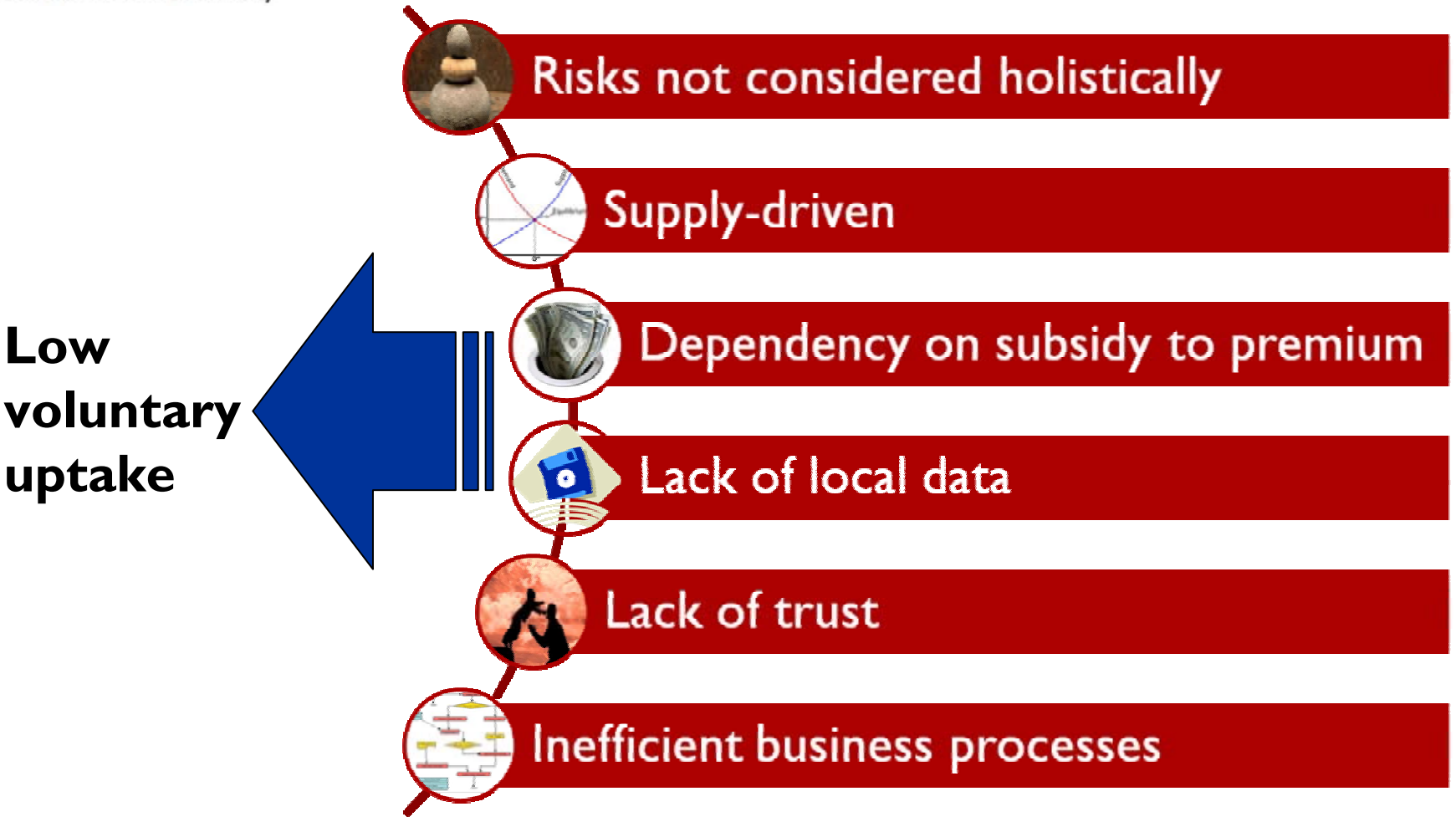
- Bihar is India's most flood-prone state (73% of area, 76% of population)
- Kosi Flood in August 2008:
  - Heavy monsoon rains, poor maintenance → embankment breach
  - Affected ~3 million people in Bihar, killed hundreds of people and livestock, destroyed 300,000 houses and damaged at least 340,000 ha of crops

Floods are a recurrent risk in Bihar: every year

Life and health, crop and livestock of people are affected simultaneously

Not much done by government/state and other agencies except post-disaster

Challenges with Existing Microinsurance Schemes

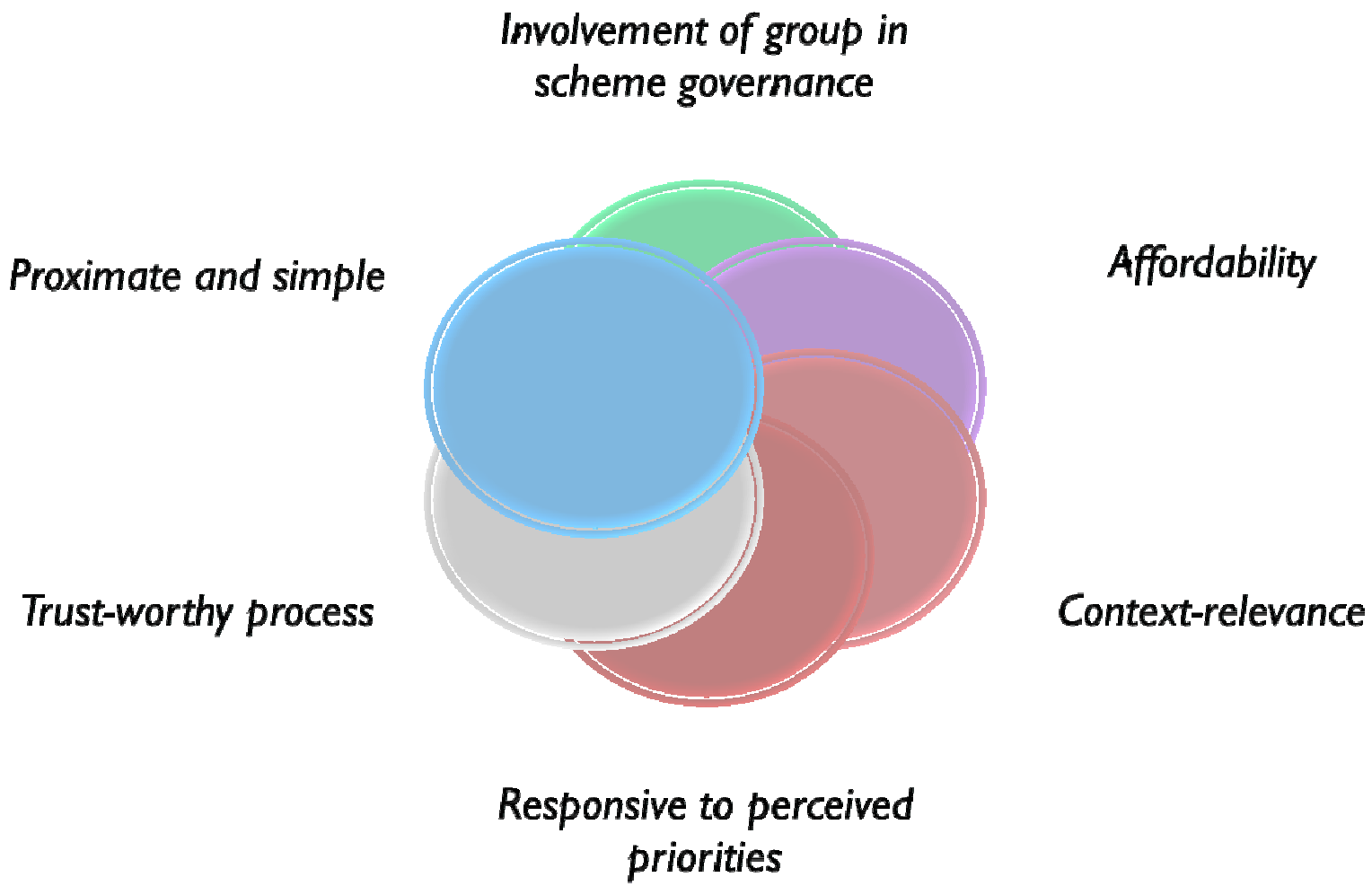


What is needed?

- Needs-driven approach
- Offered insurance has to be relevant
- Risks have to be viewed holistically for BoP people
- Value proposition of insurance has to be understood

- Insurance failures to be reduced
- Operational costs to be minimized
- Location-specific data (frequency & severity of events)
- Actuarial pricing

MIA's experience: 6 essential features for success



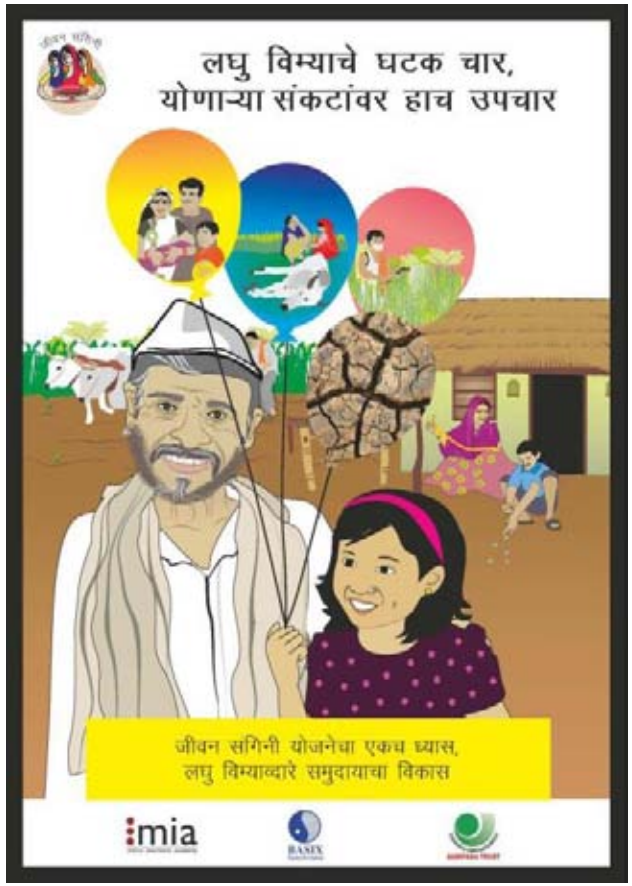
Awareness Building

Vaishali & Ahmednagar

1. Street play
2. Posters
3. Flip books
4. Songs
5. Brochures
6. Movie
7. Animation

<u>Games</u>

8. Treasure Pot
9. Dart
10. Slide/Snake & ladc
11. Wheel of fortune



MIA's Experience: Prioritized Risks

Must respond to perceived, prioritized risks

Understanding the Risks and Needs: Baseline

Study Design and Tools

- Structured questionnaire
- Focus Groups Discussions (FGD)
- Key Informant Interviews (KII)

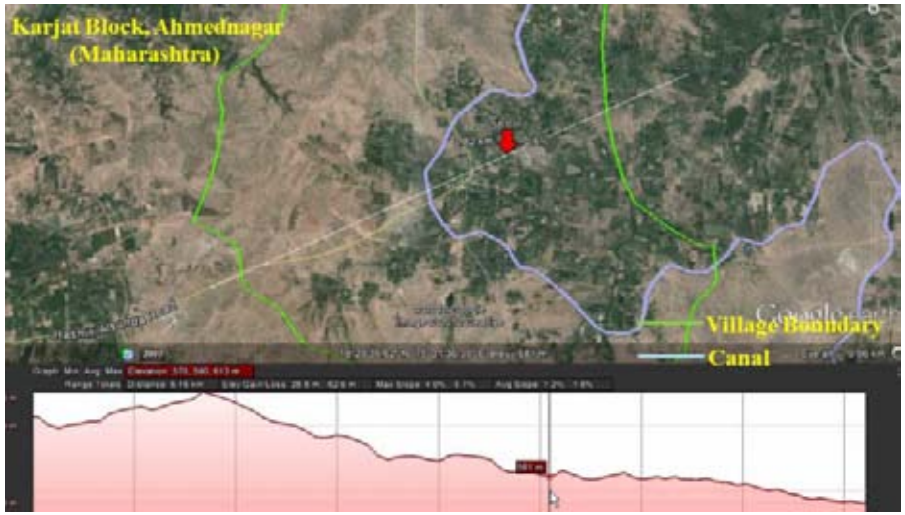
Sample Size

- >50 FGDs
- >60 KIIs
- 4200 HH interviews (2/3 control group, 1/3 intervention group)

→ **>20,000 individuals covered**

Intervention Area	Bihar			Maharashtra	
District	Vaishali			Ahmednagar	
Blocks	Biddupur	Hajjipur	Vaishali	Karjat	Srigonda
Villages covered	14	7	10	13	7
Household Interviews	981	386	733	1331	769
Key Informant Interviews	35			30	
Focus Group Discussions	27			24	

Risk Assessment in Ahmednagar (Maharashtra) and Vaishali (Bihar)



Ahmednagar (Maharashtra): Effect of vicinity to water body and slope on percolation in semi-arid area

Vaishali (Bihar): Effect of vicinity to water body and slope on flood-prone area

MIA's Experience: Proximate and simple solutions

Proximate: everything localized (info, claim submission, payments)

Simple: what we can explain we can understand

ARC and MIA Experiences: Involve the Community at every step

- Information gathering
- Insurance package design
- Business process design
- Selection of insurance awareness tools
- Administration: enrolment, claim settlement, renewal



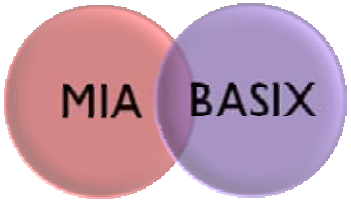
Pictures of training campaign (street play, snake & letter, CHAT: tool for consensus finding on insurance package)

Microinsurance for Climate-Related Risks

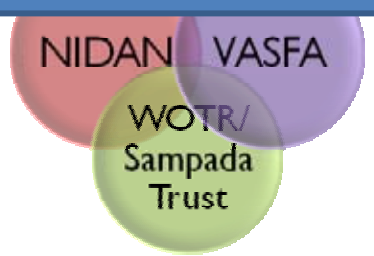
.micro .insurance .academy

Goal: Enhance the resilience of vulnerable communities to CC by developing pro-poor microinsurance solutions.

Project Partners



Field Implementation Partners



Vulnerable communities accepted and adopted CC insurance models

- Need and benefits of CCMI. Insurance tools, processes and packages. Pilots.

Knowledge and innovation shared and disseminated.

- Models for climate risks, quantification, pricing. Publications, conferences.

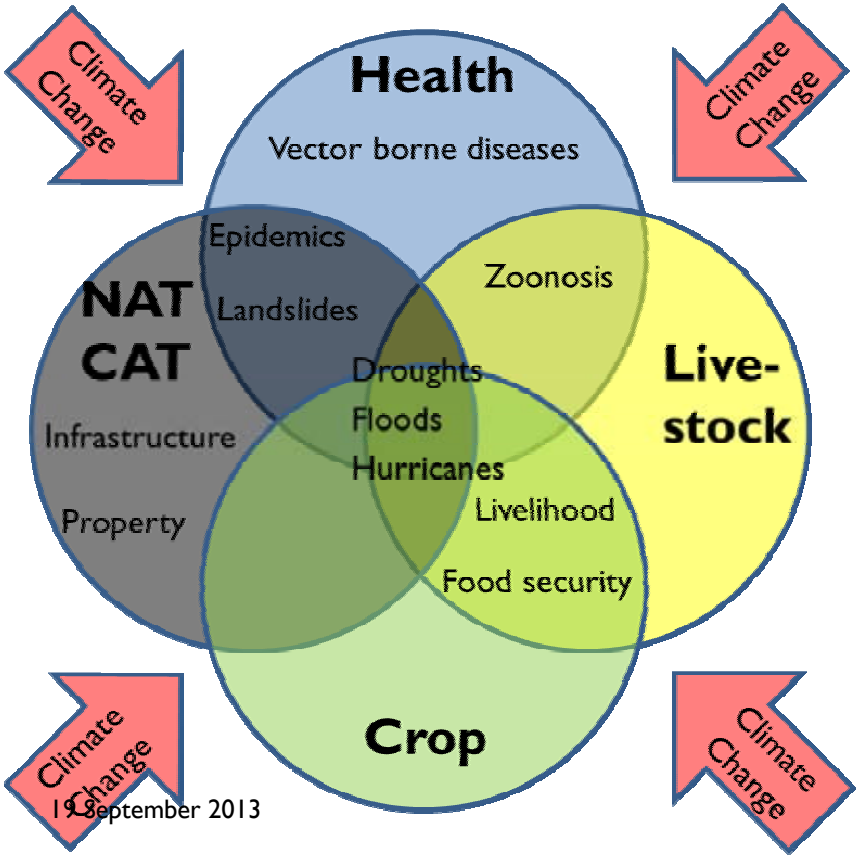
Inputs for policy, regulatory and institutional contexts developed

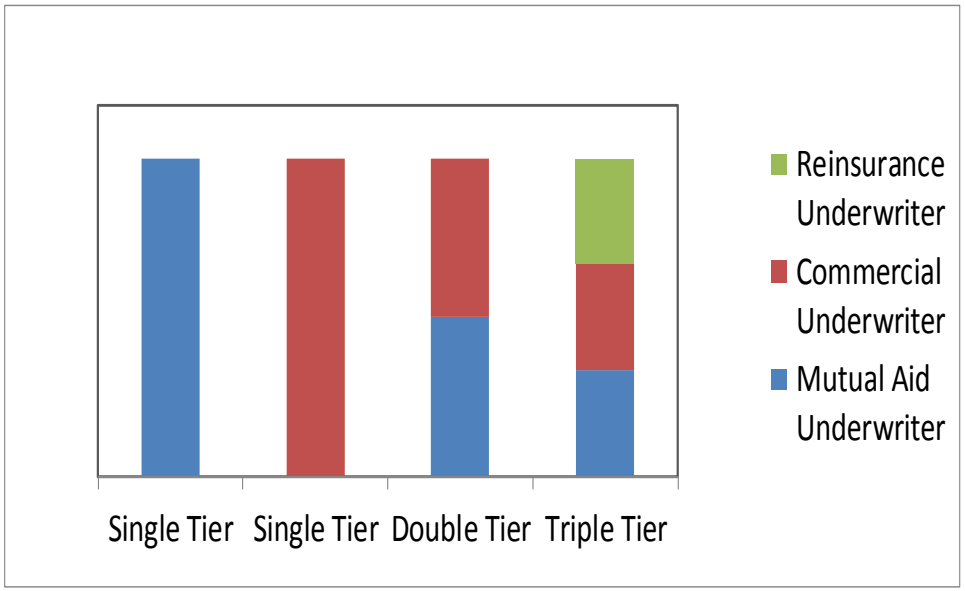
- Mechanics to produce recommendations for policy and regulatory improvements.

Composite Risk Packages & Multiple Underwriting

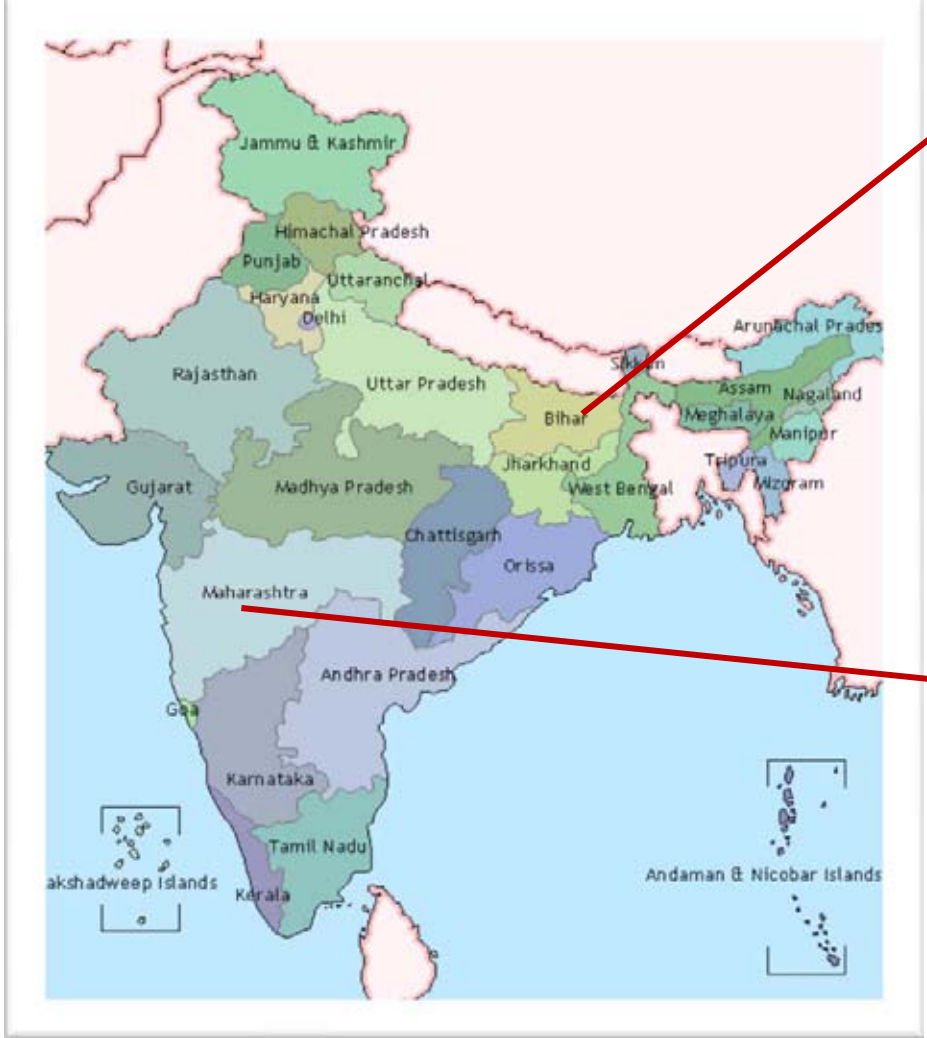
Composite packages covering multiple risks

Multiple underwriting approach





Intervention Areas (2012-2014)



Area: Vaishali (North Bihar)
Partners: NIDAN, VASFA

District: Vaishali
Blocks covered
- Vaishali
- Biddupur
- Hajipur

flood prone

Area: Ahmednagar (Maharashtra)
Partners: Sampada Trust

District: Ahmednagar
Blocks covered:
- Karjat
- Shrigonda

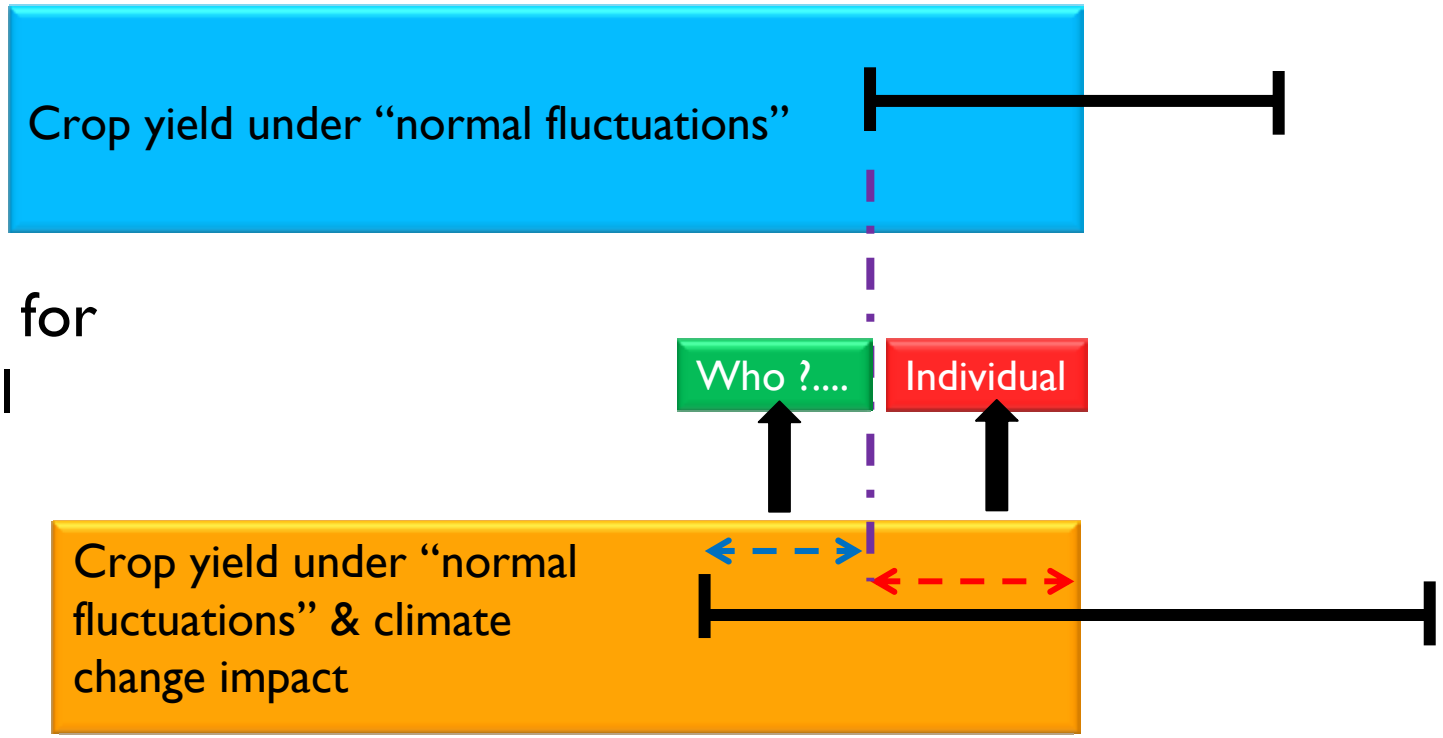
drought prone

Risk Assessment Findings

- Time-series of precipitation, temperature, yield etc. alone are not sufficient for defining/developing parametric crop insurance
- Risk assessment shows spatial variations due to proximity of water bodies and land slope → **importance of location-specific details**
- Other topographical characteristics, such as soil and groundwater depth are also important risk factors
- Existing insurance solutions do not consider these parameters
- Challenges for parametric crop insurance
  - Gaps in weather data from reliable sources
  - Access to live-stream of weather data to determine pay-out
  - Availability of reliable historical crop yield data on village or block level

Illustration of De-trending of Climate Change Contribution

Illustration for agricultural insurance



Who shall pay for increment of risk due to climate change?

→ Transfer climate change related cost element to risk subsidy


THANK
YOU!