

Climate Resilience Through Community-based Microinsurance



Towards Climate Resilient Communities in South Asia: Emerging Policies and Practices', New Delhi, December 14, 2012

Dr. Nihar Jangle

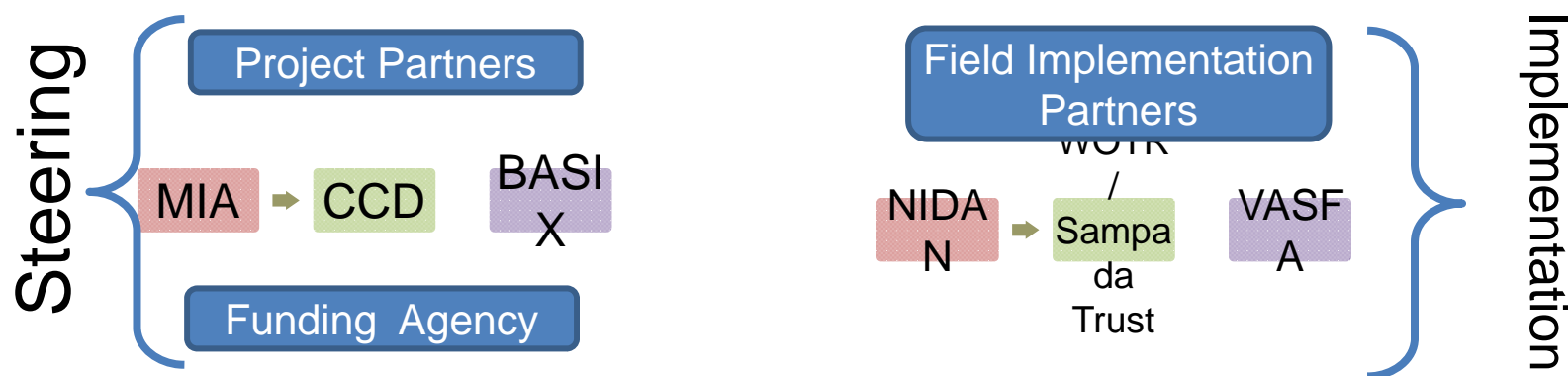
Microinsurance for climate-related risks

Community-based approaches

Climate vulnerability

Project Overview

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



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.

Impact Hypotheses



Climate change risks to be insured

- unpredictable
- quantifiable



Approach

- context-relevant
- customized
- participatory



Access to capital

- costly
- restricted



Insurance scheme

- Contributory
- Complementary



Value proposition of insurance

- explanation required



Insurance solution

- only addresses financial consequences of

Proximate and Simple Solutions

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

Simple: what we can explain we can understand

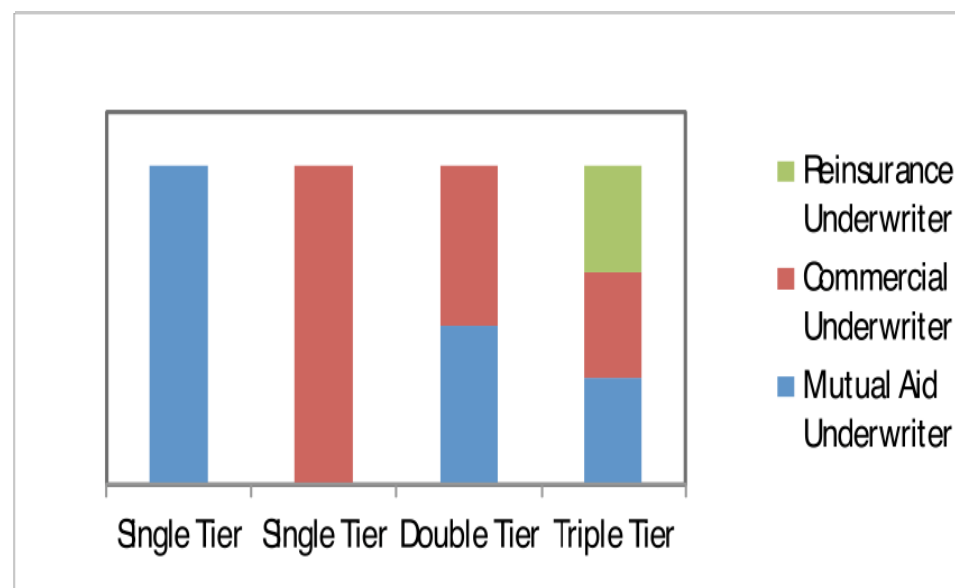
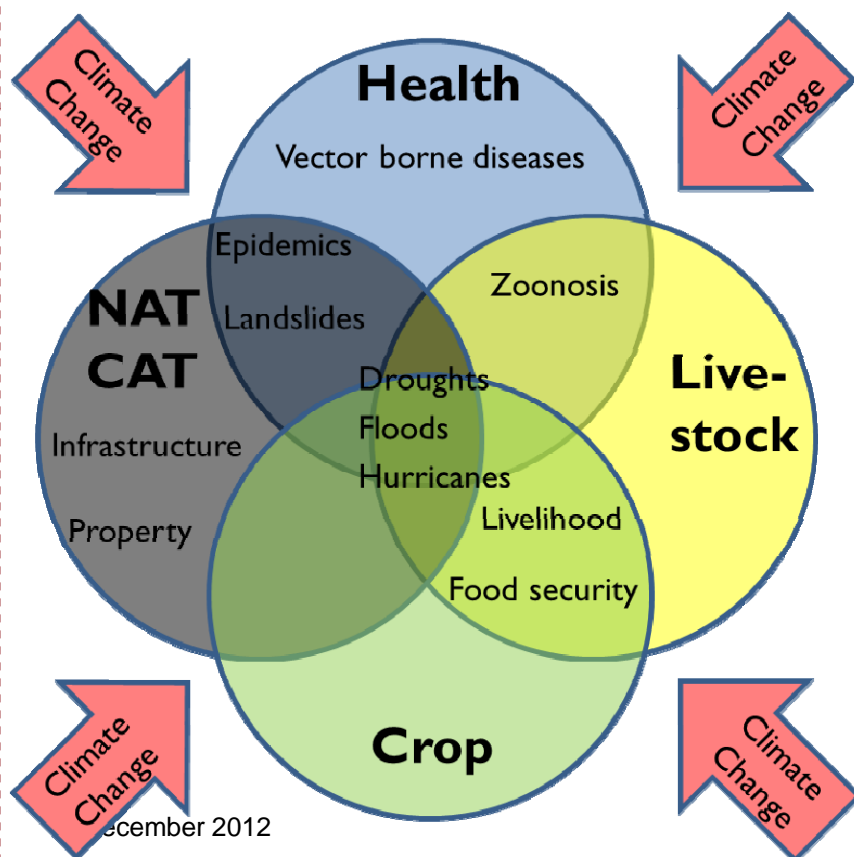


14 December 2012

Composite Risk Packages & Multiple Underwriting

Composite packages covering multiple risks

Multiple underwriting approach



December 2012


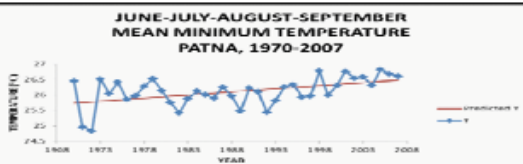

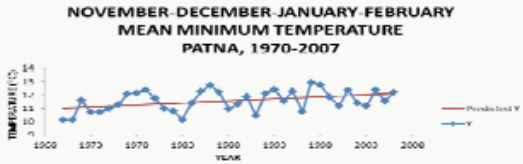
Weather Data Analysis

Dataset

- Purchased from the Indian Meteorological Department, Pune
- Rainfall data: 1901 to present, daily level, 5 rain gauge stations (one station per block)
- Maximum & minimum temperature & relative humidity: 1969 to 2008, 3 weather stations (one in Maharashtra and two in Bihar)

Methodology and Results

- Regression analysis on the time series to reveal mean monthly & seasonal temperature, humidity and rainfall trends
- Highly significant linear trends revealed for both the monsoon and winter season, particularly for the mean minimum daily temperature and humidity.

SEASON	LINEAR TREND	GRAPH	INCREASE °C/YEAR	p-value & statistical significance
Monsoon			0.028	0.0028 (1%)***
Winter			0.031	0.0097 (1%)**

14 December 2012

Study Design and Tools

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

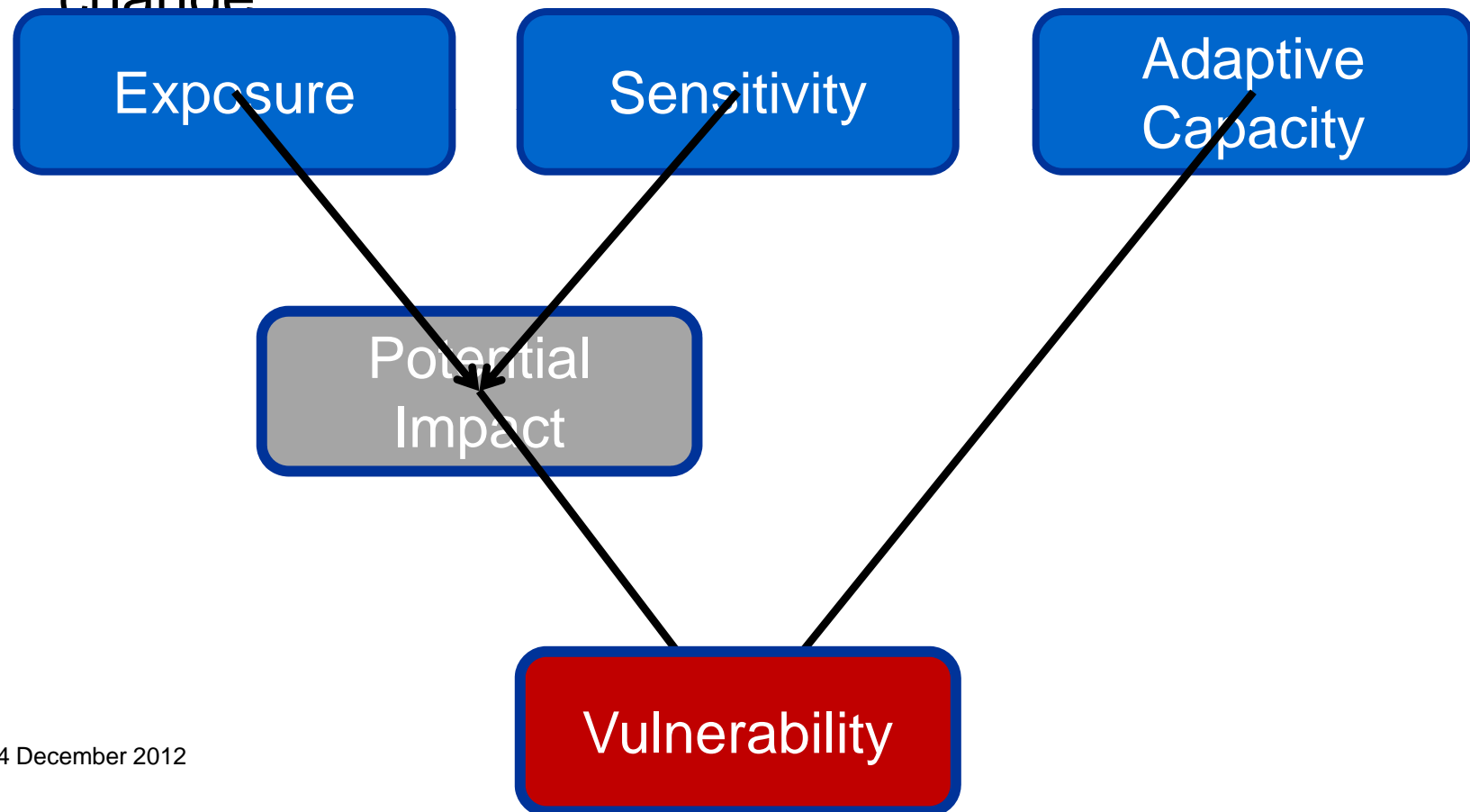
Sample Size

- >50 FGDs
- >60 KIIs
- 4200 HH interviews (2/3 control group, 1/3 intervention group)
→ **>20,000 individuals covered**

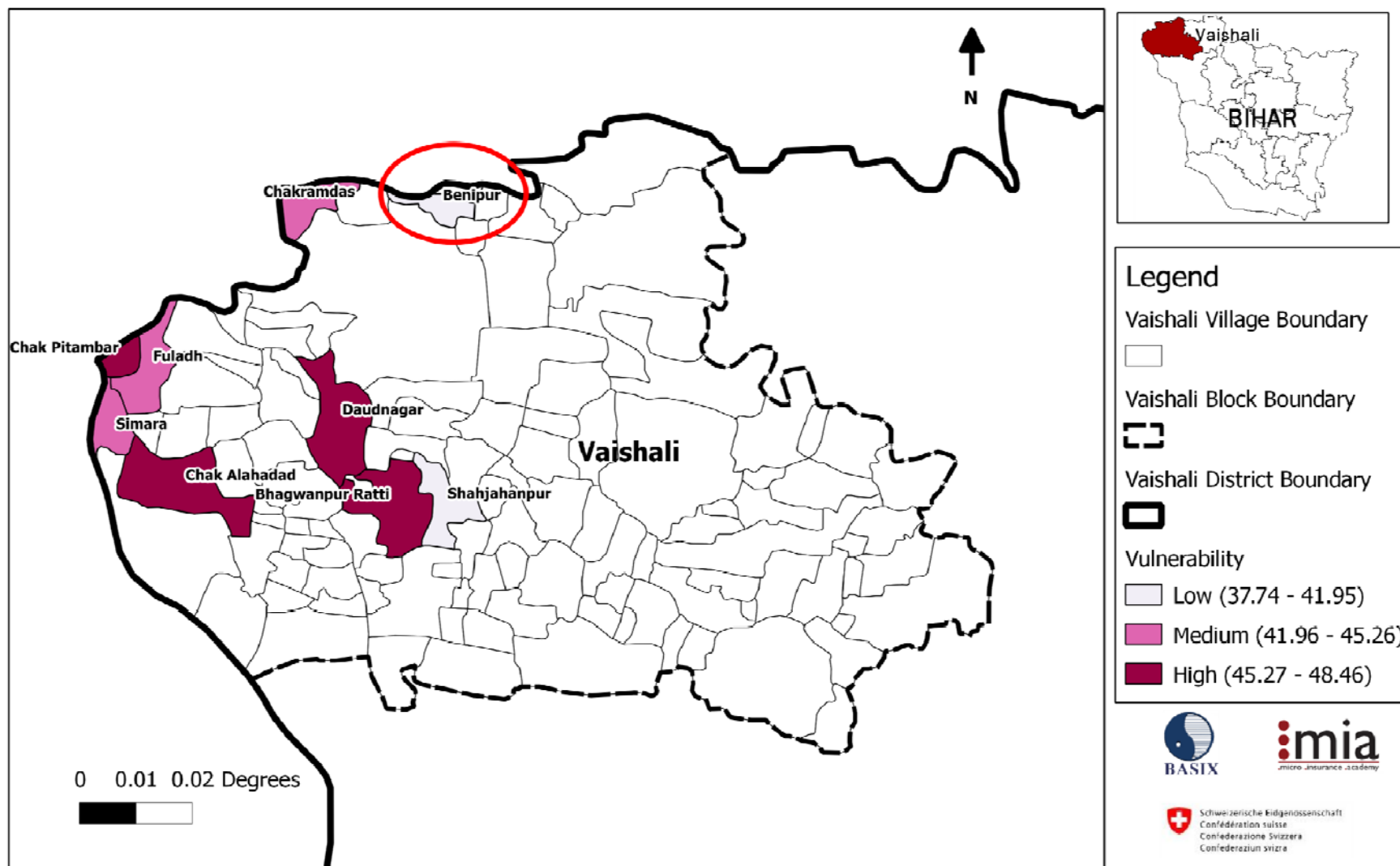
Intervention Area	Bihar			Maharashtra	
District	Vaishali			Ahmednagar	
Blocks	Biddupur	Hajjipur	Vaishali	Karjat	Srigonda
Villages covered	14	7	10	13	7
Household Interviews	981	386	733	1331	769
Key Informant Interviews	35			30	
Focus Group Discussions	27			24	

Vulnerability Mapping

- **Vulnerability:** Degree to which system is susceptible to, and unable to cope with adverse effects of climate change



Exposure, Sensitivity, Adaptive Capacity: Vulnerability in Vaishali (Bihar)

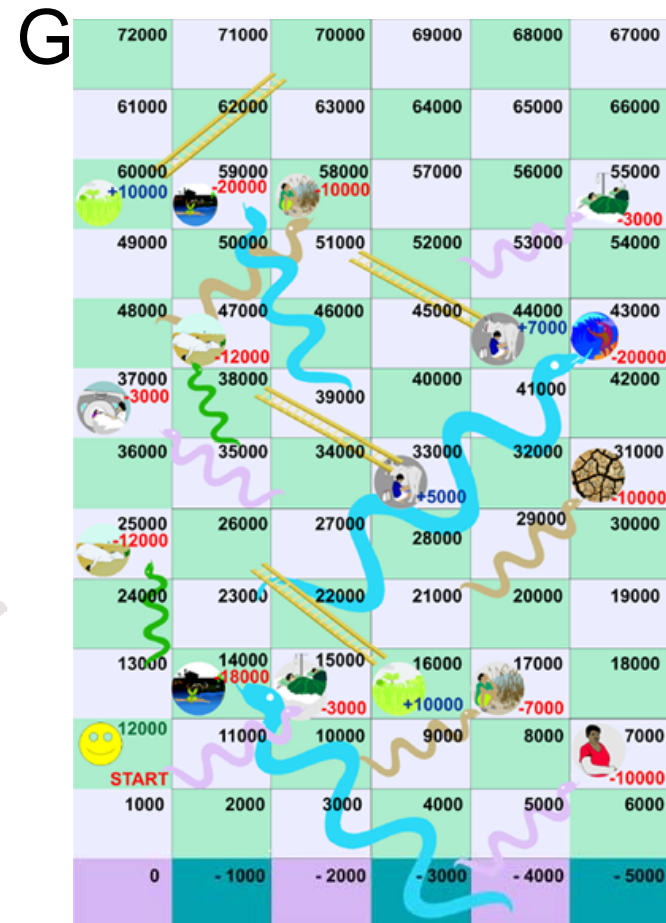


Some of the Training Material

- Animation short movie



- Snake and Ladder



Next Steps and Challenges

- Baseline analysis report
- Establishing (re)insurance linkages
- Involvement of communities and field partners in:
 - Design of business processes
 - Design of insurance packages
 - Awareness programs
 - Training of key insurance scheme actors
 - Launch of the schemes



