

Interdisciplinary entanglements in index insurance

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RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



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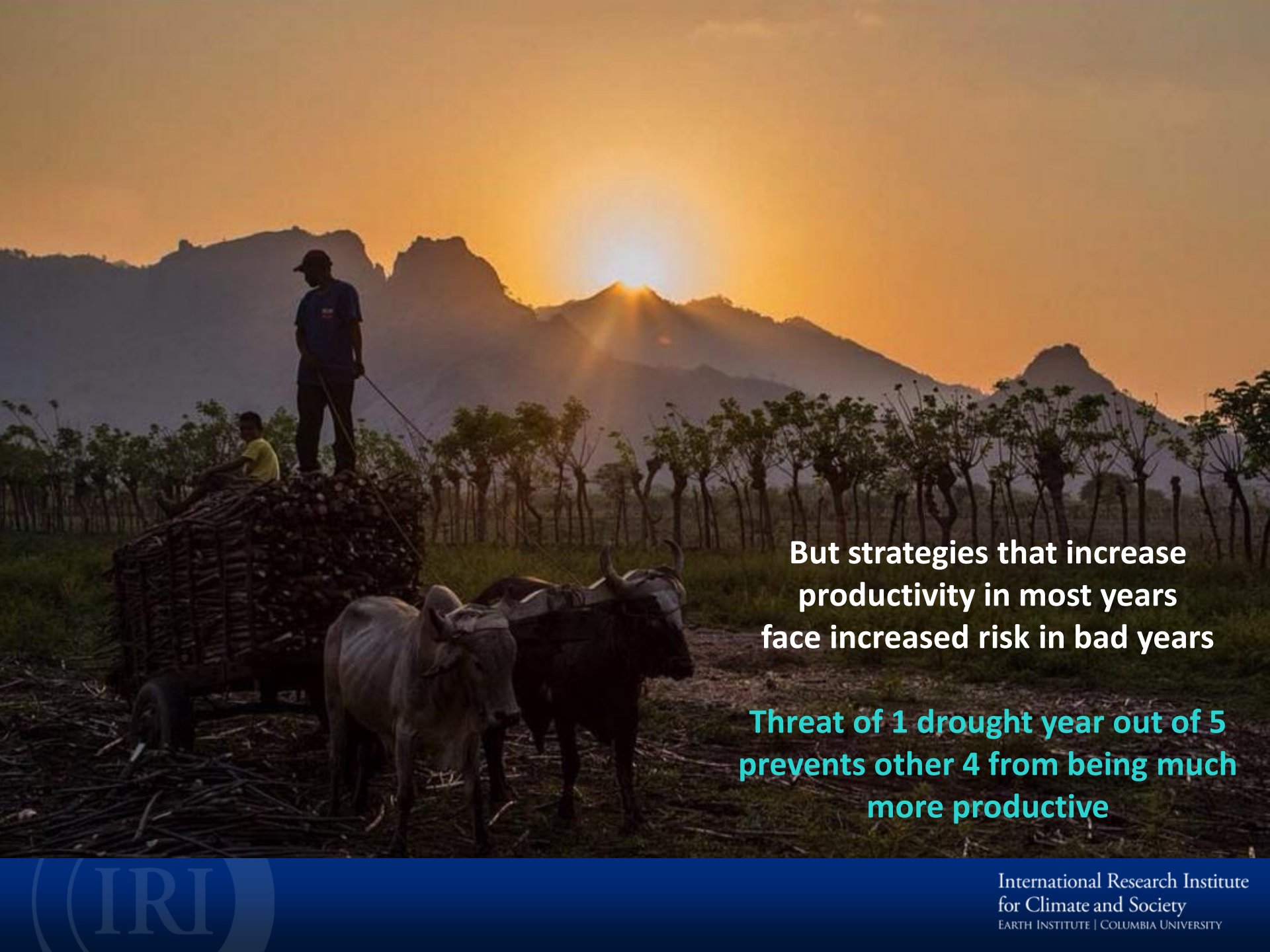
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Climate change: more bad years

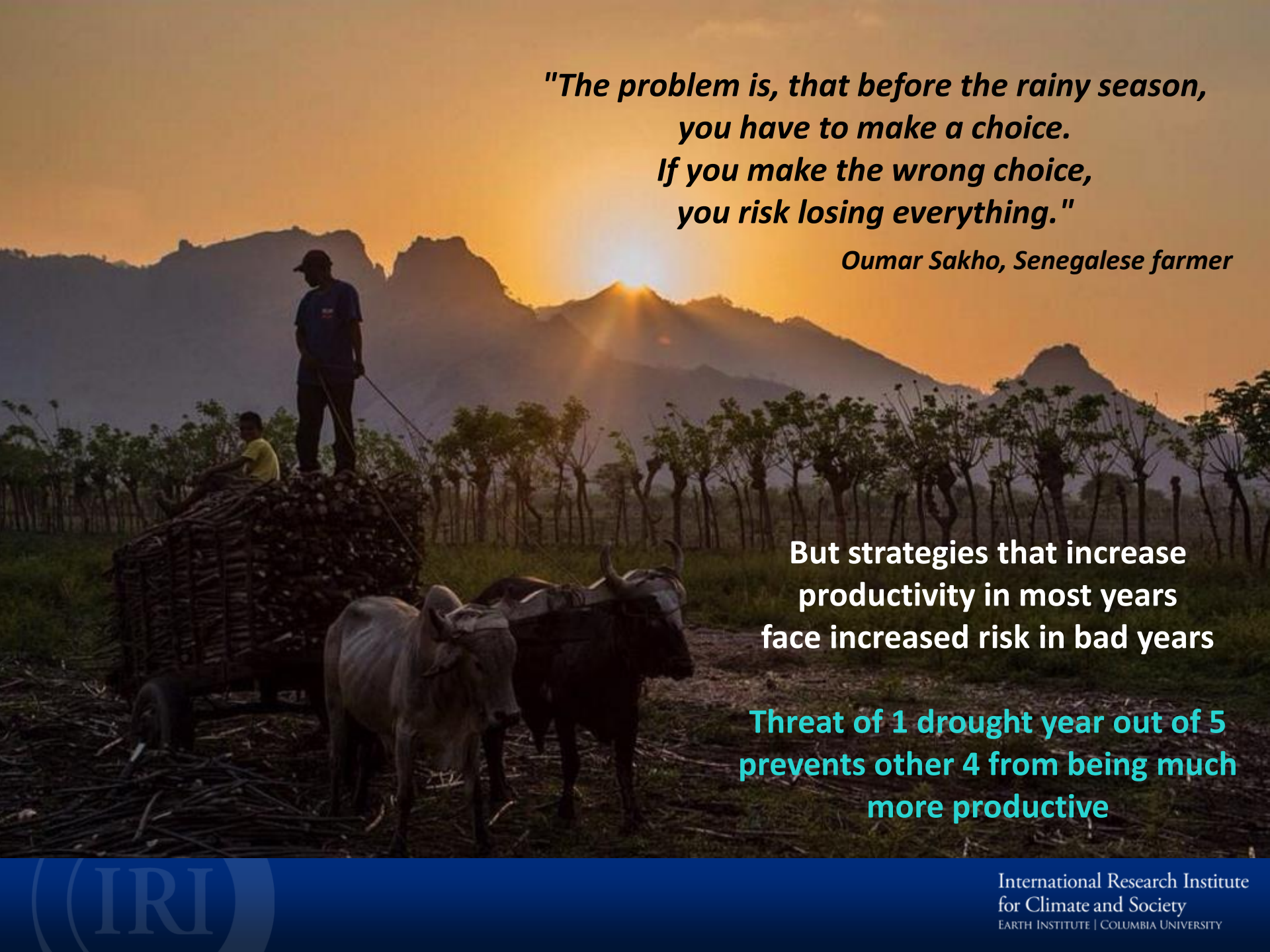
Adaptation: increase productivity
in normal years to cover bad year loss



But strategies that increase productivity in most years face increased risk in bad years

Threat of 1 drought year out of 5 prevents other 4 from being much more productive





***"The problem is, that before the rainy season,
you have to make a choice.
If you make the wrong choice,
you risk losing everything."***

Oumar Sakho, Senegalese farmer

**But strategies that increase
productivity in most years
face increased risk in bad years**

**Threat of 1 drought year out of 5
prevents other 4 from being much
more productive**

***“Capitalizing on good seasons
is just as important as
avoiding risk”***

Robert Zougmore

Key to adaptation is to relax risk of bad year to
unlock productivity options

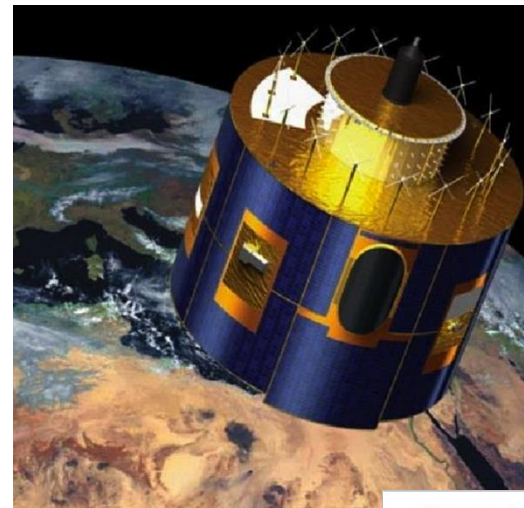
Insurance: help reduce risk to unlock productivity






Threshold for flood compensation

River level = index






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INSURANCE INNOVATIONS FOR DEVELOPMENT AND ADAPTATION

FREQUENTLY ASKED QUESTIONS



- 1. HOW IS CLIMATE CHANGE IMPACTING FARMERS?**

Climate change impacts, such as higher temperatures, stronger storms, and changes in rainfall patterns, threaten to reduce agricultural productivity in developing countries. For many farmers, climate change means more extreme and more frequent "bad" years, such as years with droughts, floods or late starts to the rainy season. Farmers must try to manage those risks, and be more productive in the remaining "normal" years, even if those years are not quite as good as they used to be.
- 2. HOW CAN INSURANCE HELP FARMERS BE MORE PRODUCTIVE AND ADAPT TO CLIMATE CHANGE?**

Most of the things farmers can do to increase productivity require taking chances. For example, a farmer might be able to increase yields by using high quality seeds. But smallholder farmers who lack savings would need a loan to buy those seeds. Farmers may worry about making that investment, because if those high yielding seeds are more costly and more sensitive to rainfall, their losses may be even higher in a bad year than if they had used the regular seeds. Furthermore, if banks think that farmers are at high risk, they may not be willing to make those loans in the first place. If insurance can address climate risks and thereby increase banks' willingness to make loans, and help farmers feel comfortable making those additional investments and using new technologies, then farmers could take advantage of productive opportunities that bring them higher income in most years. In other words, insurance can build resilience not only by providing a payout in bad years to help farmers survive and protect their assets – it can also unlock opportunities to increase productivity in the better years.

Insurance may be purchased directly by individual farmers, as illustrated by the examples in this fact sheet, or it may be purchased by a group such as a cooperative, microfinance institution, or national government. It can be beneficial to combine approaches at multiple levels: for example, farmers could buy insurance to address their production risks and national governments could buy insurance to manage country-wide crises.
- 3. WHAT IS THE DIFFERENCE BETWEEN CONVENTIONAL INSURANCE AND INDEX INSURANCE?**

With conventional "indemnity based" insurance, payouts are based on what happens to an individual farmer's crop. It does not create an incentive for farmers to work hard to save a crop in a bad year. Moreover, the adjustment process – the inspection of individual losses to determine payouts – makes conventional insurance extremely costly to administer in developing country contexts where populations are often remote and plot sizes are small. Index insurance is an alternative that addresses many of those shortcomings. Payouts are triggered not by observed damages like failed crops, but rather when an index – such as wind speed or an amount of rain during a certain window of time – falls above or below a pre-specified threshold. Farmers have an incentive to try to keep their crops alive, because the payment does not depend on proving they had losses, so they can try to maximize their farm income and still have a chance at getting an insurance payout. The index also eliminates the need for farm visits. However, as discussed later, index insurance also has many limitations.

IPCC, 2007
Photo: Farmers working in a rice paddy in Indonesia (Credit: IR)

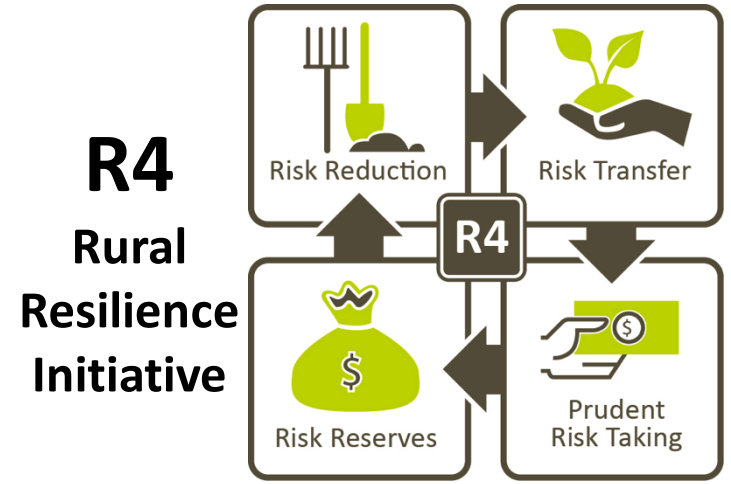
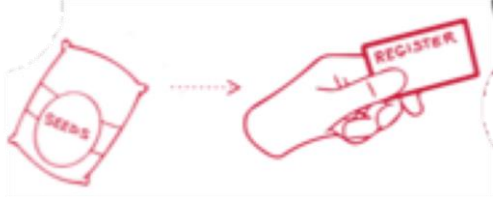
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UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
INSURANCE INNOVATIONS FOR DEVELOPMENT AND ADAPTATION

LOTS OF PEOPLE EXPOSED



800,000 farmers in East Africa since 2009



35,000 of the poorest farmers in Senegal/Ethiopia/Malawi/Zambia



25,000 Mongolian herders insured in a link between commercial & government safety net



Over 16 million farmers on weather based contracts in India



Index insurance need to be made/understood by farmers, cooperatives, NGOs, insurance companies, satellite experts, banks, agronomists, climate scientists, economists, social scientists, seed companies, national meteorological agencies, policy makers.....

Must solve sophisticated problems together, build into menu for flexible risk management package, understand level of reliability



REFLECTIONS

Each group considers the rest as “other”.

Being in the same room

Talking

Trust

Mutual listening

Defining jargon & building a joint language

Common sense

Articulating goals

Long iterative learning process

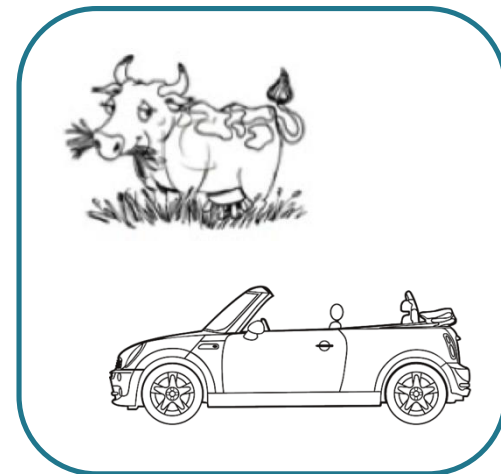
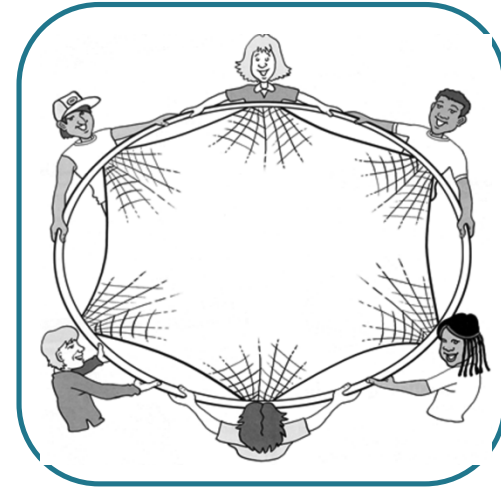


ROLE OF INSURANCE

Enhance productivity



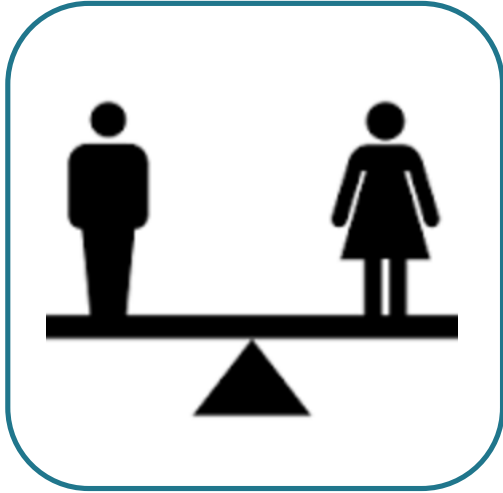
Social safety net/targeted aid



Protect an existing asset

ROLE OF INSURANCE

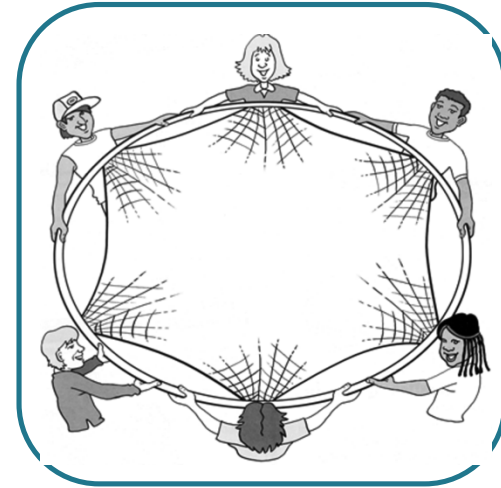
Gender equality?



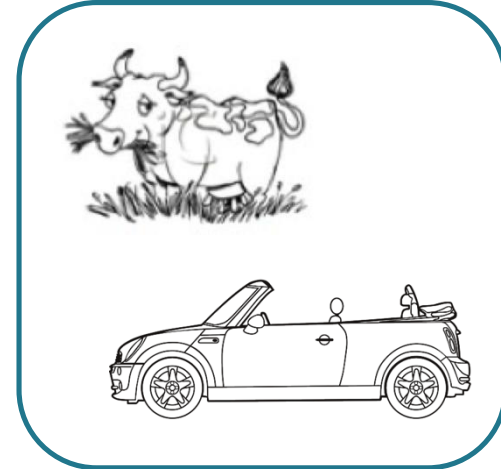
Enhance productivity



Social safety net/targeted aid



Impact corruption?



Protect an existing asset

GAMES TO ELICIT RISK AND FARMER OPPORTUNITIES



	Ul Kpong	Gbetuori	Saabaalong	Jirapa	Nawonyele	Tampie	Dange	Touri	Tanchara2
1983									
1984									
1985									
1986									
1987									
1988									
1989									
1990									
1991									
1992									
1993									
1994									
1995						grasshopper		95 or 98	
1996			either 96 or 98						
1997									
1998	either 98 or 99				g'nut low			95 or 98	
1999									
2000									
2001				late start then flood	worms				
2002						grasshopper			
2003			worms						
2004					worms				
2005									
2006									
2007									
2008									
2009									
2010									
2011									
2012									
2013						g'nut			
2014									
2015									

MONGOLIA

Daniel Murphy

Impact of financial services including credit and insurance on “risk thinking” among herding households

Veronika Muller

Does Index Insurance Help Households Recover from Disaster?



GENDER & INSURANCE IN GHANA

There are many insurance programmes where women are more likely to buy insurance than men.

But in the literature

“It is hypothesized that this finding results from the fact that, although men and women are equally exposed to yield risk, women face additional sources of lifecycle risk -- particularly health risks associated with fertility and childcare -- that men do not.”



GENDER & INSURANCE IN GHANA

Using semi-structured questionnaires and targeted interviews, we found insurance uptake in Ghana

- If it was at the right time of day
- If it was well advertised & not just by extension officers
- If it was matched with other useful ideas
- If it came recommended by *their* trusted source
- If it fit their culture and household
- Local language and context is key – insurance and time
- If it linked with their lives

But these tools must be usable by non experts



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SOCIAL QUESTIONS – MORE THAN JUST RISK

Ethics

Who should pay the premium? Climate justice
But what does this mean in practice?

Who is driving farmer change and adaptation? Who *should* drive it?

Sociology

How are different interdisciplinary groups working together to design insurance?

Is there a new common language for insurance?

What are the incentives for insurance for each group?

What are the multiple definitions of success for an adaptation project?

