



# Optimal Packages of Insurance and Credit for Smallholders in Africa

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## CONTENT part 1: Project

- What is the Project all about?
- Objectives of the Project
- Benefits for the Participants
- Methodology
- Short, medium and long term effects



## The Project

- The ultimate aim of the Project is to help increase agricultural productivity among the smallholder farmers in Africa.
- Two country cases: Kenya and Zambia
- In Kenya, it is a collaboration between the Egerton University, the Agriculture and Climate Risk Enterprise (ACRE); the Natural Resources Institute (NRI) at the UK University of Greenwich and Wageningen University in the Netherlands.
- It is being sponsored by the Economic and Social Research Council (ESRC) and the UK Department for International Development (DfID).

## Objectives of the Project

- Study **packages** of services for smallholders, i.e. insurance + credit + inputs.
- Assess the value addition of insurance in the **supply of credit** for agricultural inputs.
  - How does an extra degree of insurance change the amount of credit provided?
  - How does it change the conditions of credit, e.g. interest rate, maturity, collateral, etc.
- Evaluate the effect of packages on **demand for credit**. Do farmers demand more and invest more in inputs?
- Identify **optimal packages**, where supply and demand are maximised.



## Benefits for the Participants

- By participating in this Project, financial institutions, insurance companies, MFIs, NGOs, cooperatives, farmers and other stakeholders will benefit as follows:
- The results of the Project **will help you improve the packages** that you offer to farmers or plan to implement.
- It will tailor-made the **recommendations specifically to your particular product/package** in a manner that is practical and effective.
- It will help you **demonstrate greater positive impact on your clients by offering improved products** that better fit their needs and are business-efficient for you.



## Methodology

- Interviews with participants to understand their particular circumstances.
- Business Games: Auction-like exercise with a number of suppliers of service packages.
  - The auctioneer will state varying degrees of insurance.
  - The suppliers will determine the amount of supply of credit (and the conditions) they would be prepared to offer.
- Surveys: A sample of farmers will be approached to assess their preferences for packages and the possible effects of these on farm productivity.



# Short, medium and long term effects of the Project

- Immediate and short term effects: Participants will improve their packages offered to farmers.
  - By identifying optimal levels of insurance to produce better results.
  - By cost-effectively designing packages that impact farmers positively.
- Medium and long term effects:
  - Agricultural productivity and farmers' wellbeing is improved.
  - Policy-makers enhance the conditions for more effective finance for agriculture.



# CONTENT part 2: Farm survey Kenya

- Background research Kenya
- Objectives of the farm survey
- Methodology
- Planning





## Background research Kenya

- Shalem (Ltd) and Hope Africa (NGO)
- Buyer of approximately 10,000 registered smallholders
- Organized in 300 groups of 20-50 farmers each
- Smallholders have an average farm size of 0.5 up to 1.0 acre
- Purchaser of sorghum and mung beans (and to a lesser extend sunflower and soybeans)



## Background research Kenya cont'd

- In 2014 nine farmer groups have participated into a pilot project providing a bundle of credit, inputs, and index-based insurance.
- Credit was provided by Equity Bank and Capital Sacco.
- Insurance was provided by UAP Holdings



## Background research Kenya cont'd

- In 2015 upscaling the pilot, and has started an awareness campaign to reach all its registered smallholders.
- Offer access to finance at favourable credit terms, leaving it open to farmers to voluntarily underwrite an insurance coverage.
- Possibly insurance will be offered both as indemnity and index-based insurance.



## Objectives of the farm survey

- The research seeks to gauge the contribution of credit-**insurance** bundles in enhancing the agricultural **productivity** of smallholder farmers.
- In particular the evaluation will focus on the role that insurance plays in packages consisting of agricultural inputs and credit.
- The goal is to derive the conditions under which credit-insurance bundles maximize the benefits to farmers, such that these bundles can reach larger numbers of farmers at lower costs, and with a greater impact.

## Methodology

- The research is designed to provide minimal interference with the initiatives that would normally be undertaken.
- The design consists of three stages:
  - Baseline
  - Encouragement
  - Endline



## Baseline

- In this stage we will randomly select a subsample of the 300 farmer groups registered.
- In the selected groups, we will collect baseline socio-economic characteristics from a random subsample of smallholders, regardless of their actual or future uptake of the credit-insurance bundle.
- This information will serve as a baseline on which to measure the propensity to uptake the packages, as well as their impact.





## Encouragement

- In this stage we aim to induce random variation in the uptake of the insurance across groups.
- We will provide some sort of uptake-encouragement in a random subsample of the groups selected in the baseline for the evaluation study.
- The encouragement may consist of better credit terms in case of insurance uptake (higher incentives), or a stronger awareness campaign (higher knowledge), or both.



## Encouragement cont'd

- Options Pilot A: Better credit terms in case of insurance uptake (higher incentives)
  - Through price auctions to determine Willingness to Pay (WTP) for the bundle?
  - Willingness to Accept (WTA) to take-up insurance at certain discount level(s) of interest rate for credit?
- Pilot B: Stronger awareness campaign (higher knowledge)
  - Through more frequent trainings?, follow-up?



## Endline

- The endline data collection will consist in a follow-up of the baseline data collection effort.
- The data will then be analysed using the most rigorous statistical analysis methodologies to ensure the largest extent of causal attribution.
- This analysis will allow to measure the net effect of insurance and the credit-insurance bundle in enhancing the productivity and wellbeing of the targeted smallholders.



## Responsibilities

- NRI, Wageningen UR and Egerton University:
  - Finance additional cost of the encouragement (i.e., better credit terms)
  - Conduct baseline and endline survey (Egerton University)
  - Analyse the surveys



## Discussion

- Survey:
  - Size of subsamples and how many farmers surveyed?
  - What is the encouragement? (e.g., level of interest rate discounts)
- Planning: when baseline, encouragement and endline?



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