

A person is sitting on the ground in a field of tall, dry grass, leaning against a large tree trunk. They are holding a notebook and a pen, appearing to be writing or taking notes. The background shows a hazy landscape with hills under a clear sky. The overall scene is peaceful and suggests a field study or research environment.

Addressing the dangers in scaling index insurance: farmers and solid science based solutions

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December 2, 2011 – Durban

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Index insurance is overcoming barriers

- **Some initial concerns**
 - Can the very poor be reached?
 - Will poor people buy insurance?
 - Can insurance scale?
- **Examples of these barriers starting to be broken**
 - **Some of the poorest farmers in the world being reached** eg: Ethiopia (HARITA)
 - **Some farmers are purchasing at higher rates than seen for traditional insurance products**
eg: Kenya (Kilimo Salama), Ethiopia (HARITA)
 - **Some projects are scaling very fast**
 - Unsubsidized pilots scaling from couple hundred farms to thousands in 2-3 years. eg: Kenya (Kilimo Salama), Ethiopia (HARITA)
 - In India, subsidized pilots scaling to tens of millions in less than a decade



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New dangers with scaling

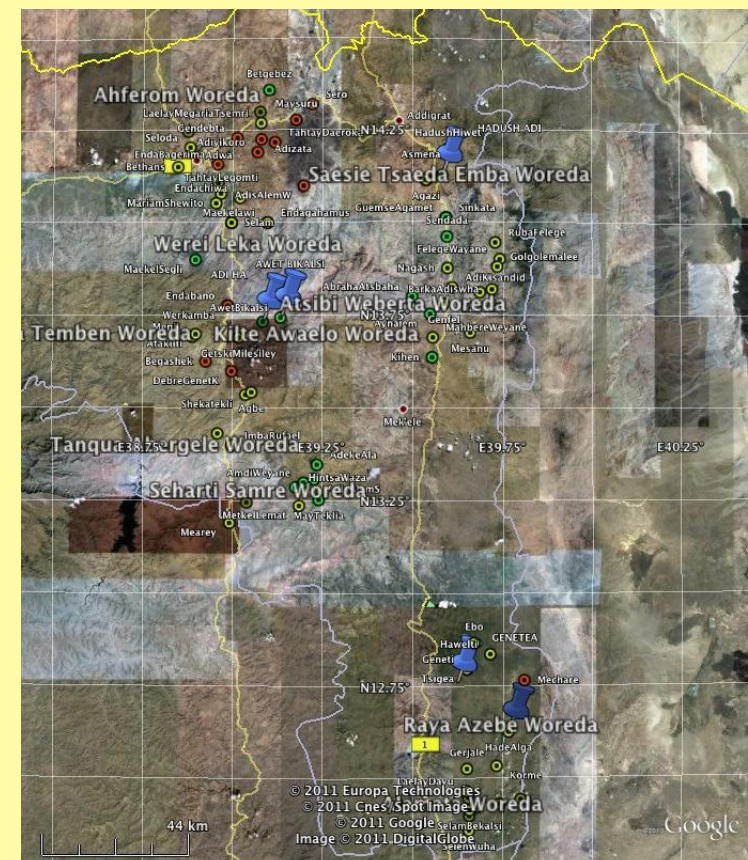
- **Pilot approaches not robust for scale**
 - Pilots handcrafted through expert scrutiny of individual sites
 - Not possible at large scale
 - Pilots target low hanging fruit
 - Pilot techniques will not be universally applicable
 - Pilots focused on proof of concept
 - Approaches are initial start, not final solutions
 - Have known failings and limitations
 - Use of science often exploratory, and naïve
- At scale, technologies and processes must be strong enough to identify/fix problems in each place
- **If pilot approaches applied at large scale, many farmers could be hurt**



Solution: Farmers, Solid Science

- **Example: Satellite imagery**
 - Potential solution for scaling
 - Satellites without validation usually wrong
- **Case study: HARITA in Ethiopia**
 - HARITA payouts based on satellite rainfall
 - Ethiopian National Meteorological Agency developed advanced satellite product
 - Farmers in each village use satellite data to decide inputs for index design software
 - Scientists, farmers, experts, review software outputs, each with formal decision making authority
- **Science to flag - solve problems**
 - Needs to be validated at scale
 - Developing methodology to use vegetative satellite sensing to validate index to flag problem sites
 - Working with Ethiopian NMA to provide better remote sensing of rainfall
- **Working with partners to make these kinds of solutions scalable and responsible**

Validation of ARC satellite rainfall estimates with ENMA product and Satellite vegetation estimates for 83 villages in Ethiopia Green=highest agreement, Red=Lowest





Thank you

