

Grameen Foundation's Community Knowledge Workers (CKW) Program



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Background

Like many places around the world, farmers in Uganda lack access to critical farming information

- Which crops to plant
- When to plant
- How to prevent and treat crop and animal diseases
- Which markets offer the best prices for their goods

Can access to actionable and up-to-date agricultural information help farmers emerge from poverty?



CKW Program

- Database of agricultural information
 - Developed by agricultural researchers and reviewed by panel of agricultural experts
 - Over 50,000 tips on 47 crops, 10 livestock animals, weather, market prices, transport directories, input locations, & mobile money
- Community Knowledge Workers
 - Permanent farmers
 - Nominated (or approved) by neighbors
 - Required skills (literate in English, leadership, etc.)
- Smart phones & solar chargers
 - CKW Search: Access to database
 - CKW Survey: Open Data Kit for data collection
 - CKW Pulse: Messaging between Grameen and CKWs
- Goal is for contracted enumeration services to fund the program (*57% sustainable already*)



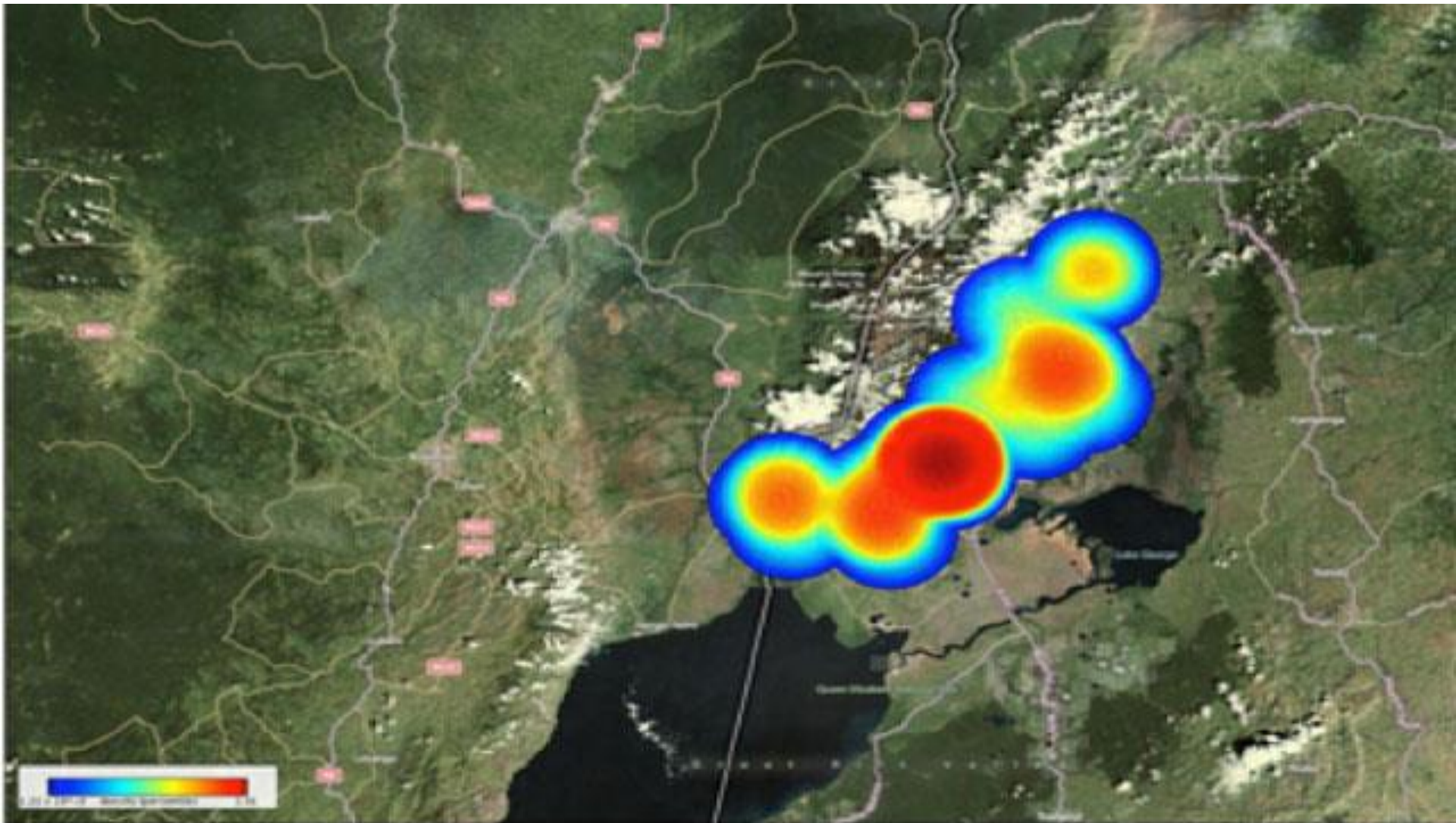
A New Model of Extension

- “Nurse with a computer”
 - Many “extension agents” with less training (*as opposed to fewer with more training*)
 - CKWs establish contact with farmers in their area (500-750 households/CKW)
 - CKWs share and interpret information
- Credible information delivered by a trusted intermediary
- Higher quality educational interactions
 - Hands-on
 - One-on-one
 - Follow-up
- Two-way information exchange informs database and program decision making



Heat Map of Baby Chicken Blight

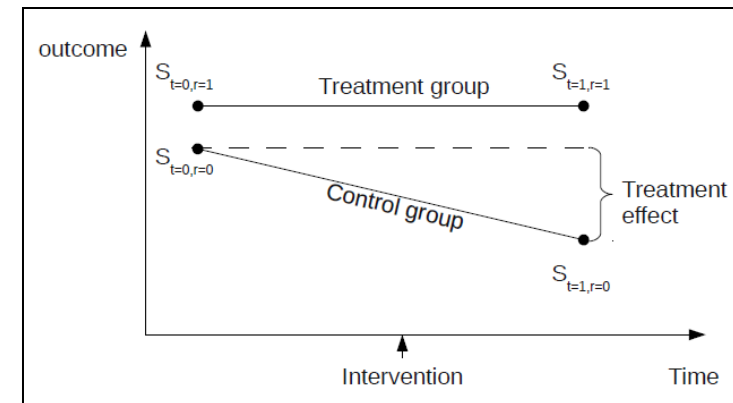
(Created with data obtained by CKWs)



Promising Early Results

- 1,100 CKWs in 36 Districts reaching 18,296 villages
- Data collected from 175,000 farmers generating 1.6 million CKW-Farmer interactions
- Data mining Studies
 - Mostly activity stats (nature of queries, CKW performance, gender differences, what types of farmers use services, etc.)
 - Support for *Diffusion of Innovation Theory*
- Difference in Differences study showed increases in:
 - Farmer's knowledge
 - Access to extension information
 - Belief that information is important to production and marketing decisions
 - Knowledge of market prices
 - Obtained price for some crops

But...



Grameen (and the Gates Foundation) consider randomized control trials the “gold standard”

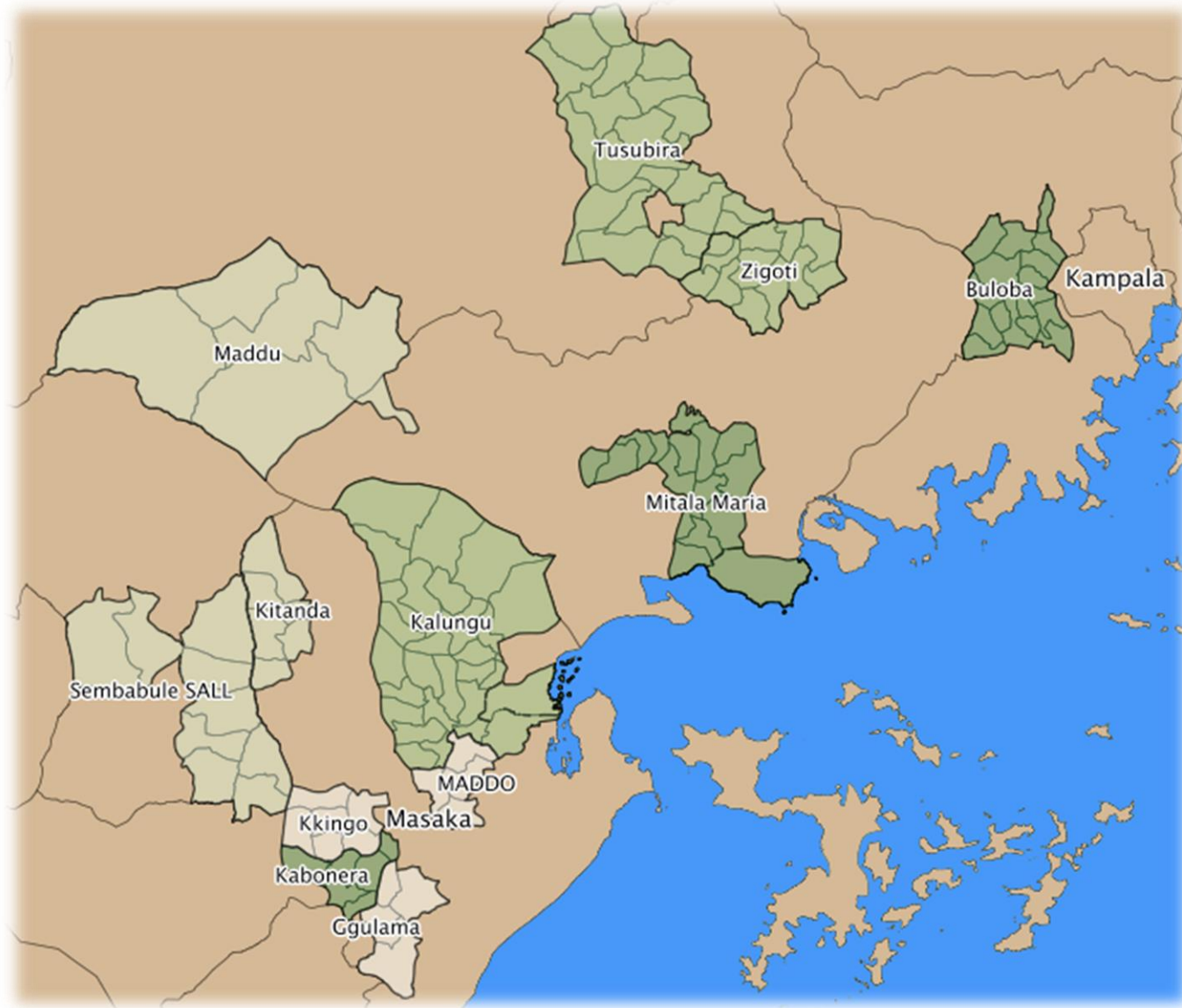
Randomized Control Trial (RCT)

- RCT conducted with 12 communities to where CKW program was expanded in Fall 2012
- Communities are East African Dairy Development dairy hubs
 - **Treatment-1:** 4 hubs with CKWs
 - **Treatment-2:** 4 hubs with CKWs and Agro-Vet Shops
 - **Comparison:** 4 hubs with no (or delayed) CKWs
- Hubs grouped by 4 similar triples (*one hub from each triple randomly assigned to each treatment*)
- Comparison hubs will not get CKWs for 3 years (unless impact is observed sooner)

Randomized Control Trial (Cont.)

- Data collection
 - **Baseline:** August 2012 (before CKW announcement and recruiting) collected from 1,200 farmers in study area (100 in each hub)
 - **Follow-up:** Every 6 months for 3 years (or until impact is recognized)
- No major changes to CKW program until after research period (e.g., credit program, input supply)
- All surveying paid for by Grameen, but conducted by independent enumerators

Map of Clusters by Triple



Farmer-CKW Interactions

- What do farmer-CKW interactions look like?
- What influences farmer-CKW interactions?
- Survey of CKWs and farmer-participants
 - Exposure to the program
 - CKW working style, accessibility
 - Perceptions of ag info
 - Farmer response to info
 - CKW/farmer attitudes about the program
- Explain outcome differences



Diffusion of Innovation Theory

