Trials for development impact?
The organization of on-farm research for scaling agricultural technologies

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Outline: Trials, scalability, impact

• 3 cases of trials used for scaling (Zimbabwe, Ethiopia, Bangladesh)
• ‘demo-trials’: dual purpose or tension?
• pressure to proof that technology works
• farmer selection bias: implications for scalability
• cacophony of scaling projects: implications for on-farm trials
**CASCAPE project, Ethiopia**

- **Adaptation trial**
  - Evaluate suitability to farming system
  - 5-10 farmers (model)

- **Demonstration trial**
  - Demonstrate proven technology package
  - 25-100 farmers (model and non-model)

- **Pre-scaling trial**
  - Identify conditions for scaling
  - 100-250 farmers

- **Scaling pilot**
  - Assess what happens if technology is implemented at scale
  - 100-1000 farmers

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**Pressure to show success**

- Best farmers
- Free inputs

- Tailored advice
- Farm days visited by local authorities
Once the technology reached scaling phase

Issues:

– Technology not available at scale (e.g. pulses, potato, food barley)
– Questionable demand for the technology (e.g. forage, snap bean)

Agronomic trials for scaling in Bangladesh’s Feed the Future Zone?

Agricultural risk
Cyclones, markets

Feed the Future
Aims to scale-up
Agricultural technologies

Geopolitical
Development strategy

Donor investment
> $17 billion

Meeting targets
Projects and donors vie to demonstrate adoption impact

Cacophony of project modalities
What are farmers’ real motivations?

New roles for the CGIAR
Responsible for impact at scale

Purpose of agronomic trials?
Technology evaluation, or technology promotion?
Case study: Cereal Systems Initiative for South Asia

- Three CG centers, goal to reach 60,000 farmers with income increases
- Adaptive on-farm trials and ‘step’ demo-trials are a core component of the technology validation, refinement, and scaling process

‘Step’ demo-trial example

‘Step’ demo-trial result (with project support, Year 1)

Despite recent shifts in development policy and funding towards ‘impact at scale’,

- on-farm trials are still predominantly used to evaluate agronomic performance;
- demonstration (knowledge transfer) has remained a major mechanism for technology dissemination

Impact at scale requires ‘socio-technical experiments’, testing conditions for scalability of technologies including socio-economic and institutional parameters,


for discussion

- How could on-farm trials and/or demonstrations be more effectively used for scaling?
- What is hampering this shift?