

# **TECHNOLOGY ADOPTION IN DEVELOPING COUNTRY SMALLHOLDER AGRICULTURE**

Results from research conducted under the CEGA-JPAL  
Agricultural Technology Adoption Initiative



IEA meeting, Mexico City, Wed June 21, 8.30-10.00 am

## INTRODUCTION

### Importance and puzzle of technology adoption in agriculture

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UC Berkeley and FERDI

- Using agriculture for development in poor countries requires productivity growth in agriculture, and for this **technology adoption**
- But observe **low technology adoption** in these countries, especially SSA and SA. Low adoption contributes to slow growth of agriculture, ineffective structural transformations, and extensive rural poverty

- **ATAI (Agricultural Technology Adoption Initiative)**, a joint project under CEGA (UC Berkeley) and J-PAL (MIT) funded by the Gates Foundation and DFID, addresses puzzle of low technology adoption
  
- **ATAI approach: Use field experiments to:**
  - **Identify constraints to technology adoption**
    - Market failures for inputs, outputs, labor, and land
    - Obstacles to access to information and learning
    - Market failures in credit, savings, and insurance
  
  - Work with partners (government or non-governmental organizations operating in SSA and SA) to **design strategies/innovations/policy reforms to overcome these constraints**

- In this session, review **results** for three categories of constraints to adoption using randomized controlled trials:
  - **Lauren Falcao-Bergquist**, University of Michigan.  
Access to Markets and Technology Adoption in Africa
  - **Jeremy Magruder**, UC Berkeley.  
Targeting **information**, social **learning**, and technology adoption
  - **Alain de Janvry**, UC Berkeley and FERDI.  
**Risk** reduction and technology adoption