Insights from a decade of PARI-Research on Food Systems Innovations

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Research on Mechanization
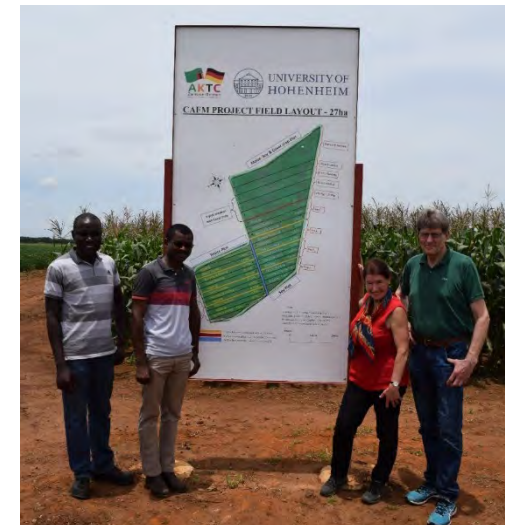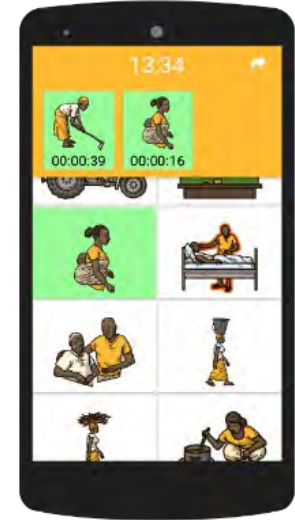

- **Impact of using mechanization services at farm household level (Zambia)**
  - Development of the "**Time Tracker**" App
  - Clearly identified significant benefits in terms of income, food security and reducing the drudgery of labor, esp. for women & children
- **Potential of mechanized conservation agriculture (CA) (Zambia)**
  - Field experiments & surveys
  - Showed that mechanization has a strong potential to promote the adoption of CA
- **State-led mechanization strategies (Benin, Kenya, Mali, Nigeria)**
  - pointed to the limitations of
- **Policy implications**
  - Skills – skills – skills!
  - Investing in skills development is key for a sustainable mechanization of agriculture!
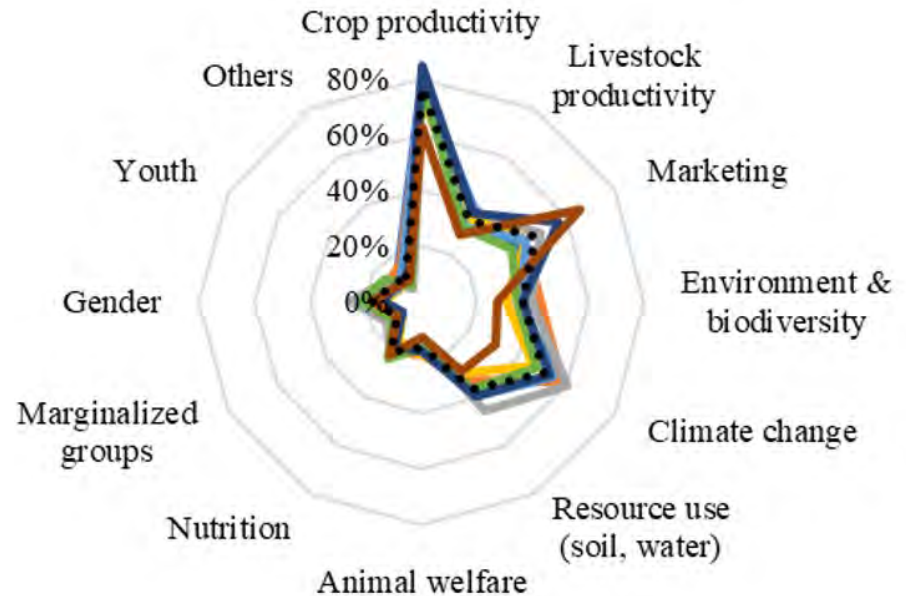
Research on Innovation Systems

- **Transition from a productivity-oriented to a sustainability-oriented innovation system?**

- **Mixed-methods research in Benin, Kenya Mali, and Nigeria**
  - Including 64 organizations across on agricultural research, extension, and education (AREE)
  - Interviews with 79 managers and survey of 1051 staff members

- **Policy implications**
  - Shifts in visions and goals are evident in many AREE organizations
    - Still more on environmental than on social goals
  - Need to better align capacities, infrastructure, interactions and institutions with a broader set of sustainability objectives

Goals of meetings between extension agents and members of other organizations

Research on Digital Tools

- **Can digital tools contribute to a sustainability transformation of smallholder agriculture?**
- **Research on digital tools for crops and livestock in Nigeria, Kenya and India**
  - Case studies on "Uber for Tractors", Soil Scanners, iCow and Herdman
- **Insights**
  - Many innovative ideas, usually by start-ups
  - Potential of digital tools to provide farm-specific advice remains underutilized
- **Policy implications**
  - Providing a "digital public infrastructure"
  - Placing technical information in the public domain

Foto: E. Njuguna

https://www.nytimes.com/2016/10/18/world/what-in-the-world/trringo-app-india.html