

# Challenges and new approaches in building markets for smallholder farmers

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Evidence to Action: Building Markets for Small-Scale Farmers  
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TRANSLATING RESEARCH INTO ACTION

# Issues to be addressed

## Growth diagnostic for Sub-Saharan Africa

- Recent acceleration of growth, largely mineral exports driven, with entry of large farms
- But continuing extensive rural poverty, urbanization running ahead of employment, expanding urban slums

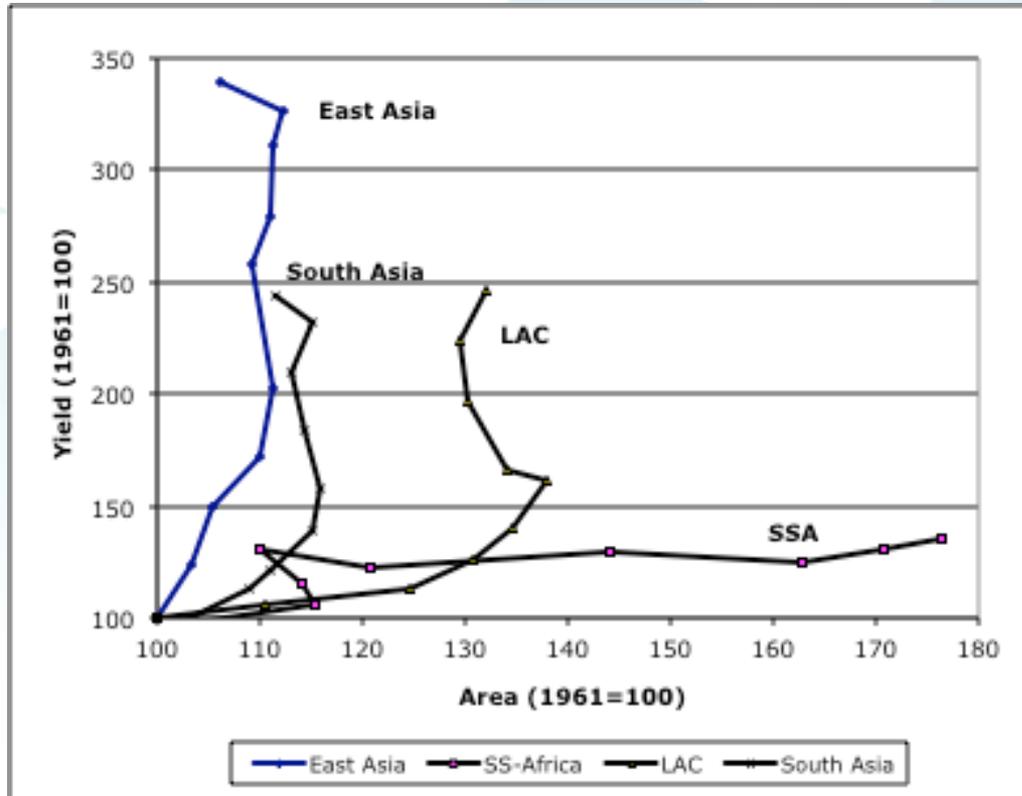
## Normative policy response

- Need growth that is more inclusive, more employment creating, more pro-poor, more endogenous
- For this: use the growth of agriculture and agroindustry as the best instrument to jump start industrialization (WDR 2008)

# Questions

- How to accelerate the growth of agriculture?
- How to include smallholder farmers?
- How to give a role to large farms in support of pro-poor growth?
- How to take advantage of the mineral exports boom in support of agriculture?
- **Elements of an answer**
- Past agricultural growth has been largely driven by horizontal expansion

# Horizontal (area) vs. vertical (yield) expansion as a source of agricultural

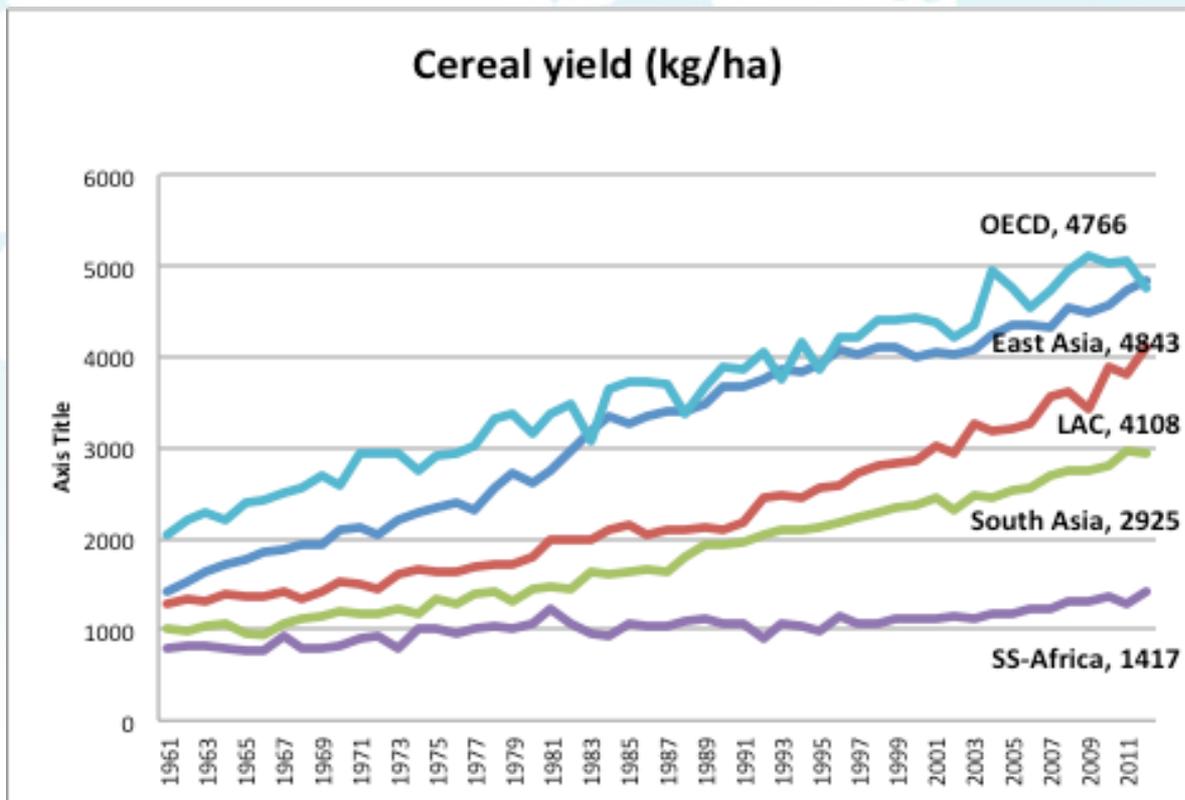


- East Asia, South Asia: mainly yields
- Latin America; area then yields
- Sub-Saharan Africa: mainly area

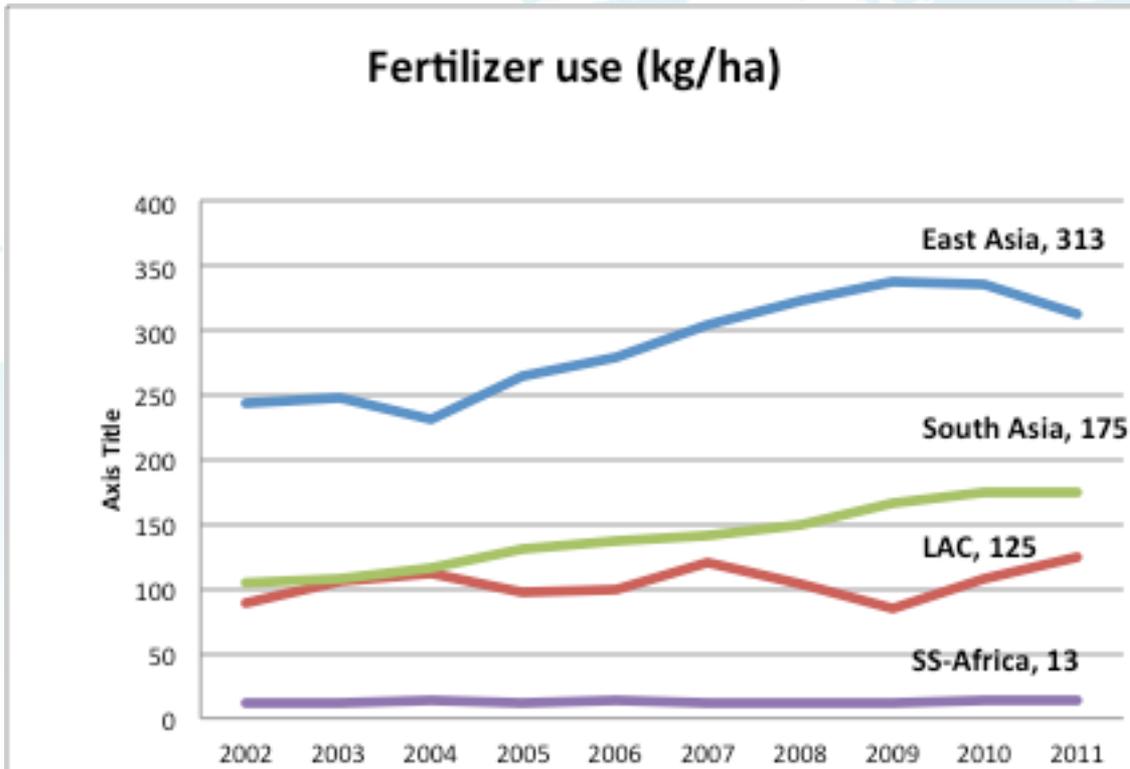
# Horizontal (area) vs. vertical (yield) expansion as a source of agricultural

- Easily accessible land is largely exhausted; average farm size is falling in most countries
- Need shift to vertical expansion: role of technology

# Yields remain largely stagnant



# Use of fertilizer lowest in SSA



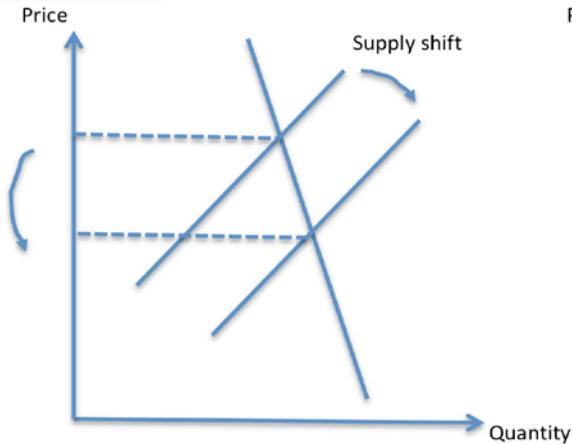
# The puzzle of continuing low productivity

- How do we explain the puzzle of low yields? Low fertilizer use?
- Many conditions must hold for technology adoption
  - Availability
  - Profitability
  - Information and learning
  - Access to credit and insurance
  - Behavior: capacity to decide
- Add dynamics/sustainability: deep markets with prices that will be sustained as supply increases

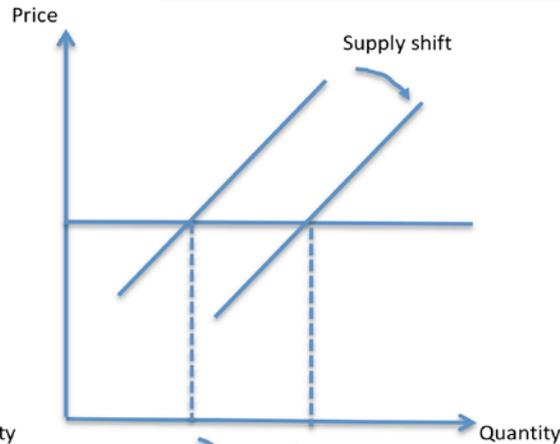
# Consider the theory of the technological treadmill

- If **inelastic demand** (non tradable goods): supply shifts, prices collapse, producers lose, technology adoption not sustained
- If **elastic demand** (tradable goods): supply shifts, prices remain stable, producers gain, technology adoption spreads.

# Indirect evidence on inelastic demand and shallow markets



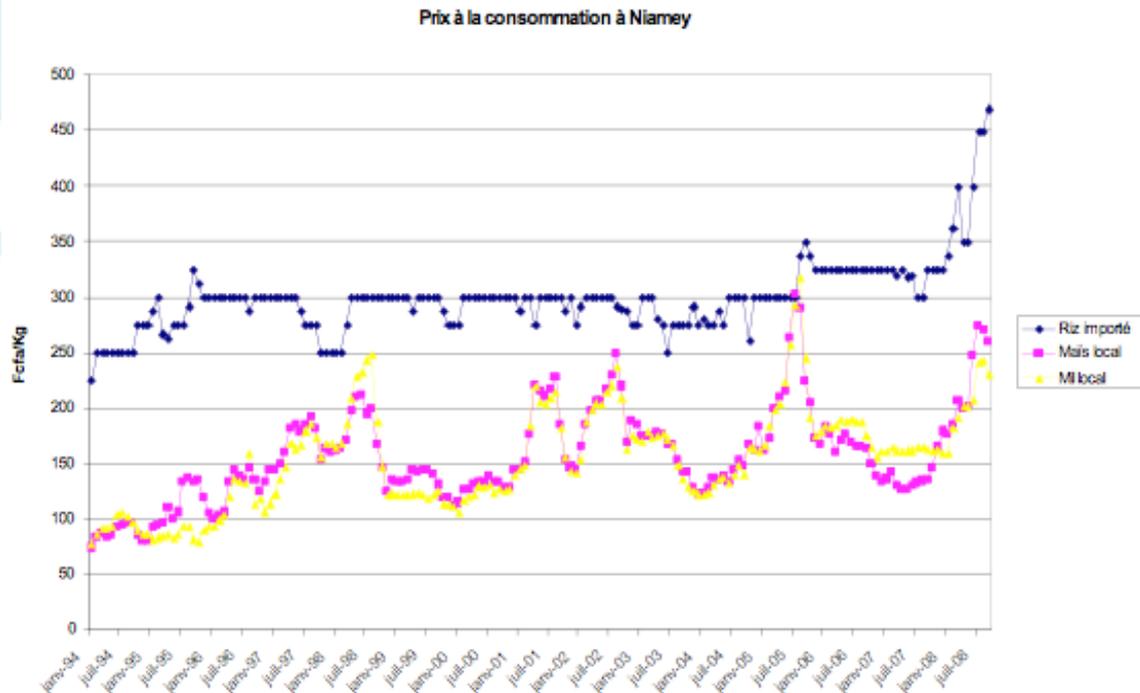
Shallow market/Non-tradable good  
Supply shifts  
Prices fall, consumers gain



Deep market/Tradable good  
Supply shifts  
Quantities increase, producers gain

- Prices fall with fertilizer subsidies in Malawi
- Highly unstable prices for local foods with weather shocks
- One Acre Fund success reflected in decline in local food prices

# Prices of imported and domestically produced cereals



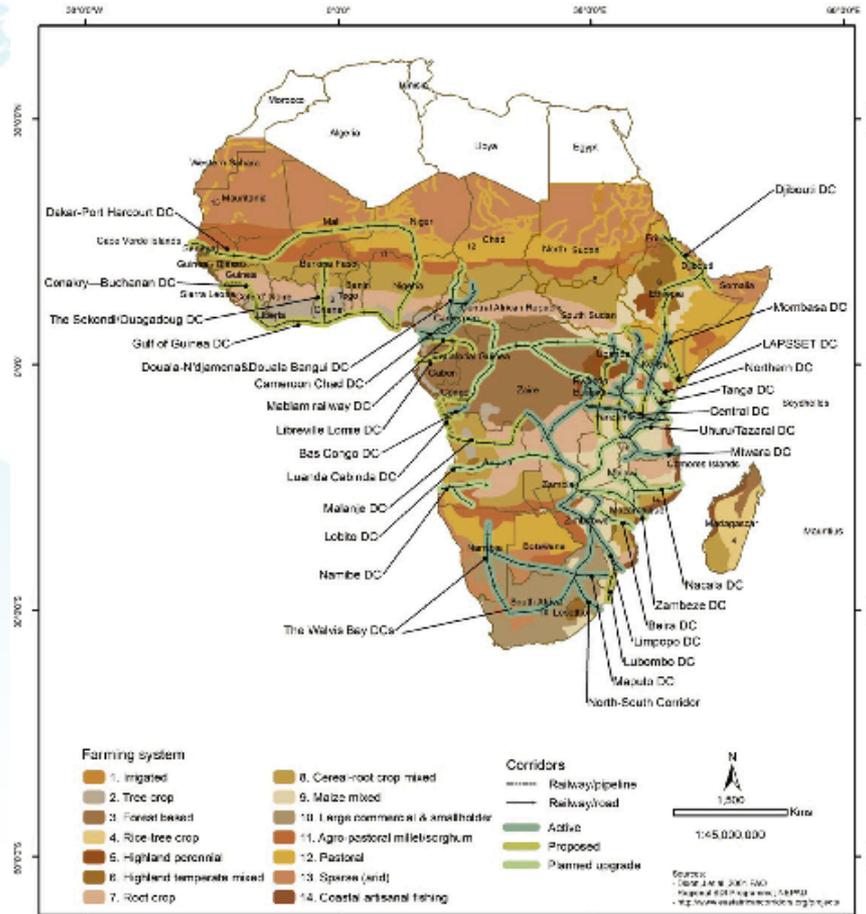
- Very little price transmission from imported to domestically produced goods.
- High price instability domestic goods with weather shocks

# How to make demand more elastic so technology adoption spreads?

- Link smallholder farmers to markets
  - Infrastructure
  - Make markets work better: information, competition
  - Contracts in value chains with agro-exporters, agroindustry, supermarkets: productive alliances
- Take advantage of growth corridors opened by mineral export boom (map)

# Growth corridors linked to mining in Africa

(Weng et al., 2013)



# Proposed research initiative:

- Take advantage of large farms to open new areas and new markets: large farms-small farms complementarities and partnerships (Brazil)
- Then once demand is more elastic, increase investment on the supply side: R&D, local adaptation
- Map price ratios:  $p_{\text{fert}}/p_{\text{cereals}}$  → static profitability
- Map elasticity of demand → dynamic profitability → Focus technological effort where price ratios are favorable and demand can be sustained. Then expand.

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