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# WHAT KINDS OF AGRICULTURAL STRATEGIES LEAD TO BROAD-BASED GROWTH?

## IMPLICATIONS FOR *FEED THE FUTURE* AGRICULTURAL PROGRAMMING

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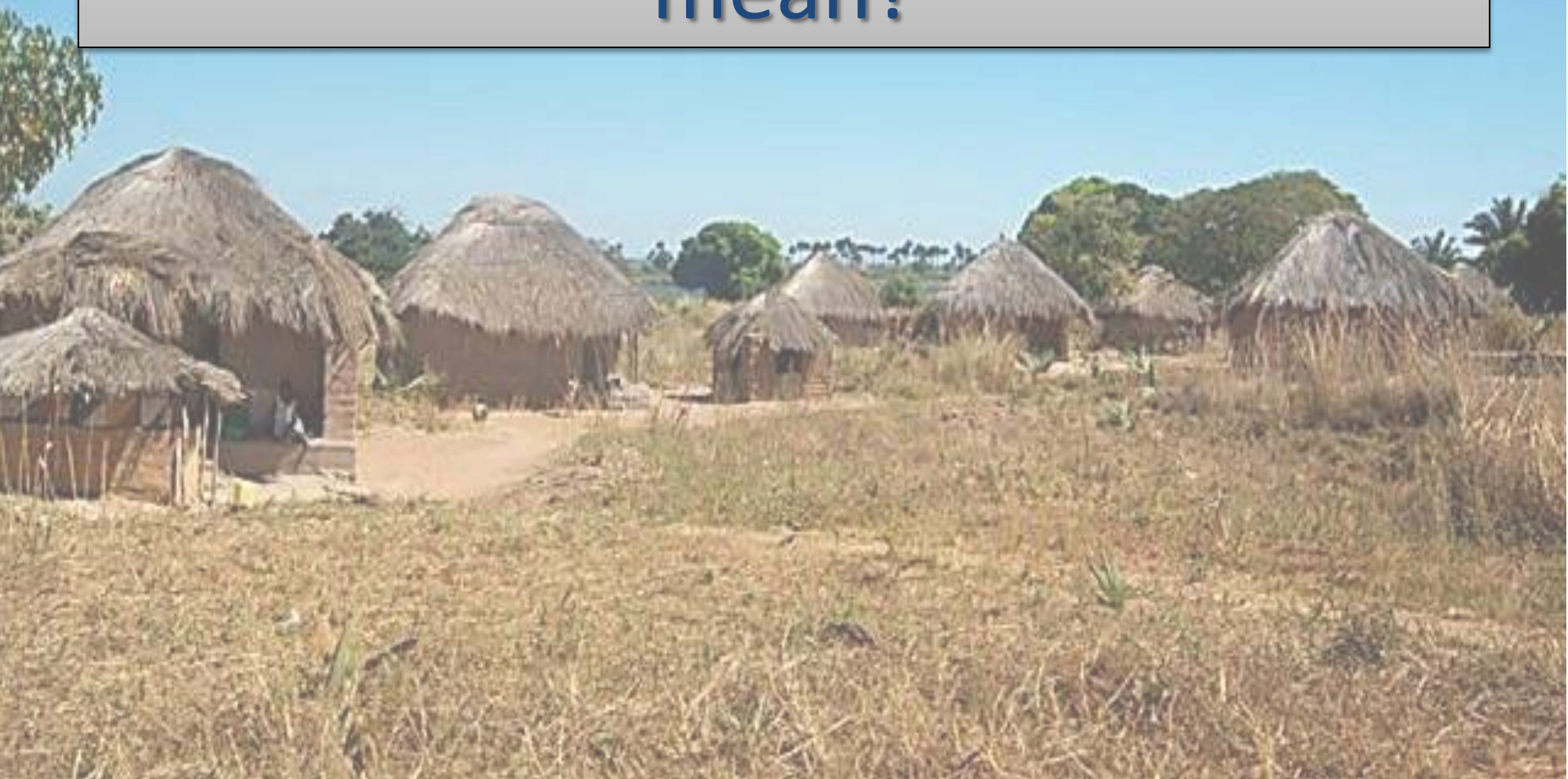
# Main issues to be covered

1. What does “broad-based growth” mean?
2. Why there is no alternative to a smallholder-led agricultural development strategy
3. What is the research evidence on the kinds of public investments and policies that achieve broad-based growth?
4. What are the priority strategies for achieving smallholder-led agricultural growth?

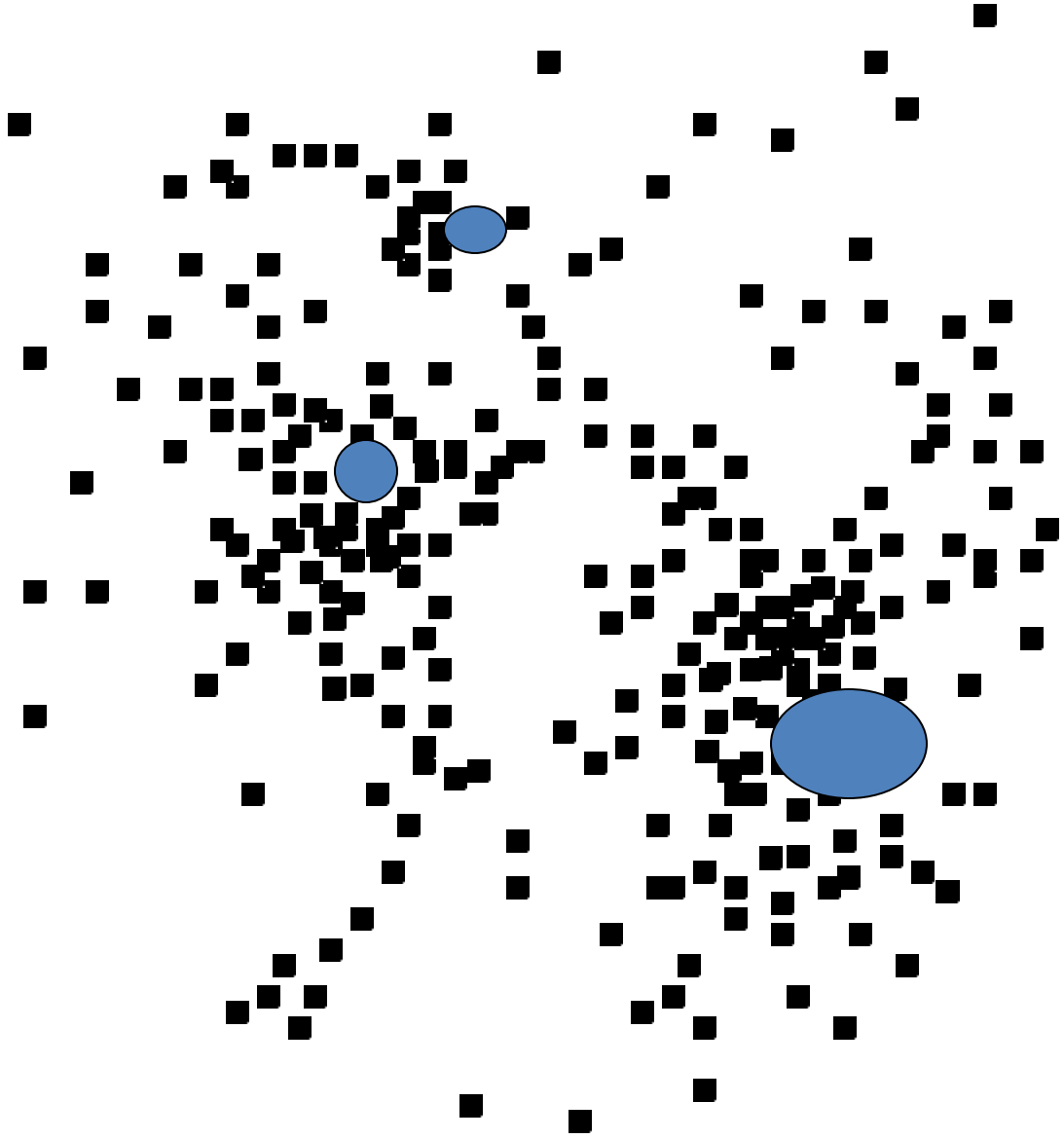
# I.
# What does “broad-based growth” mean?

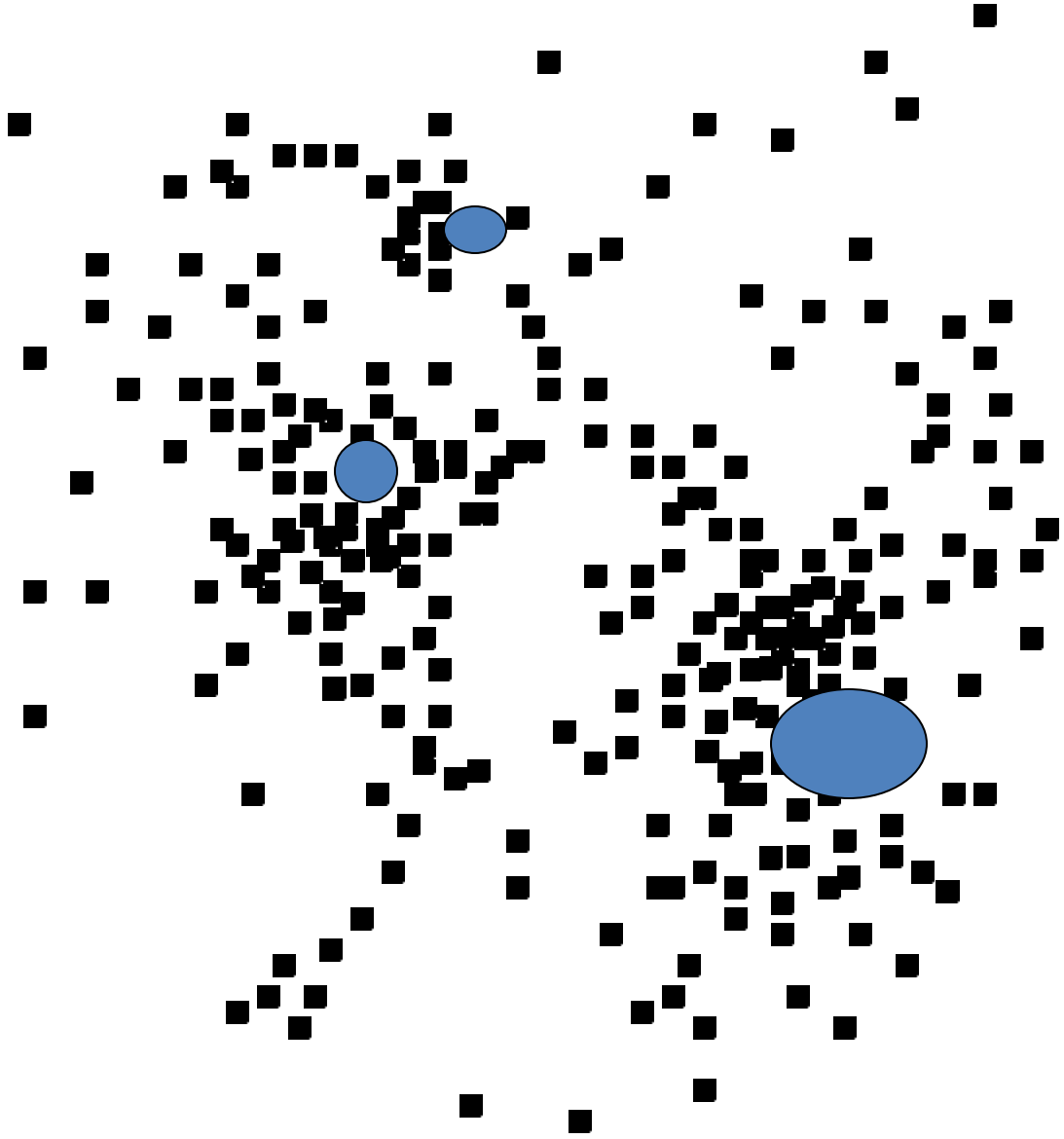


# Broad-based growth defined

- Growth processes that effectively engage a large proportion of the rural population
- Especially the poor – *equitable* growth

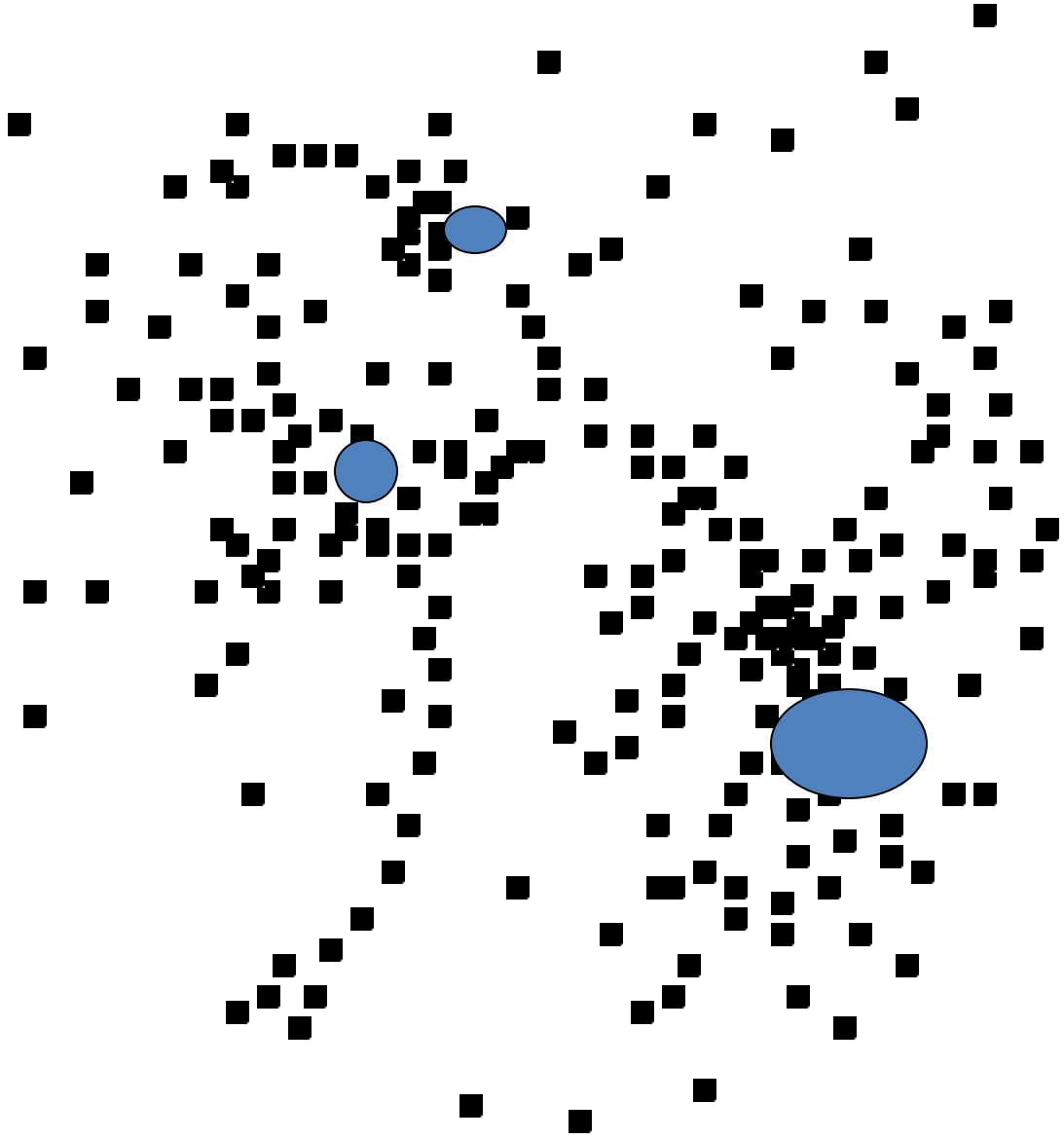
- Development of agrarian societies has mainly started with broad-based agricultural productivity growth, setting off *structural transformation* processes





Symbiotic relationship between rural farms and towns:

- urban areas provide a market for surplus farm output
- Farmers with cash generate demand for urban employment
- As demand for off-farm jobs rises → migration from farm to towns



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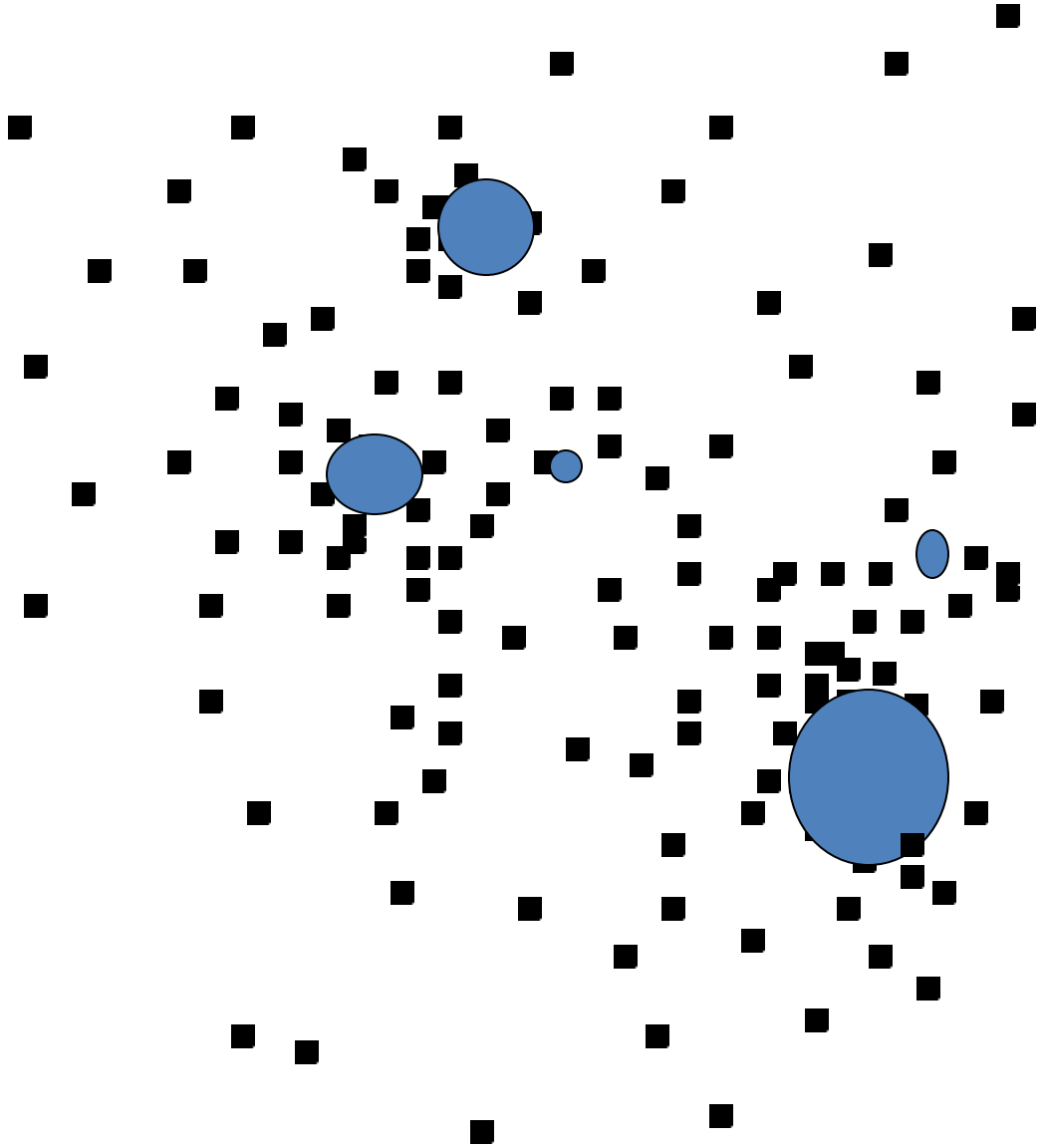

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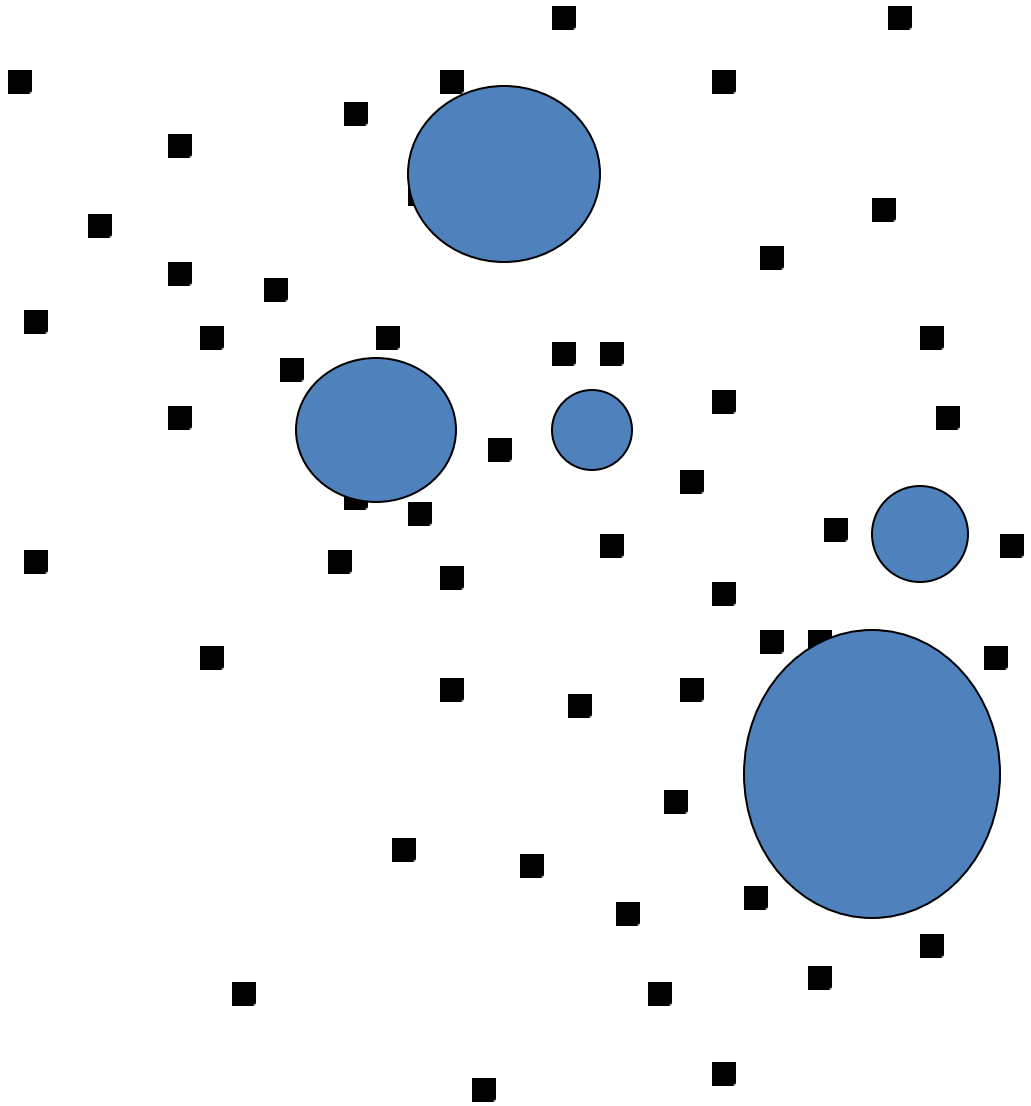

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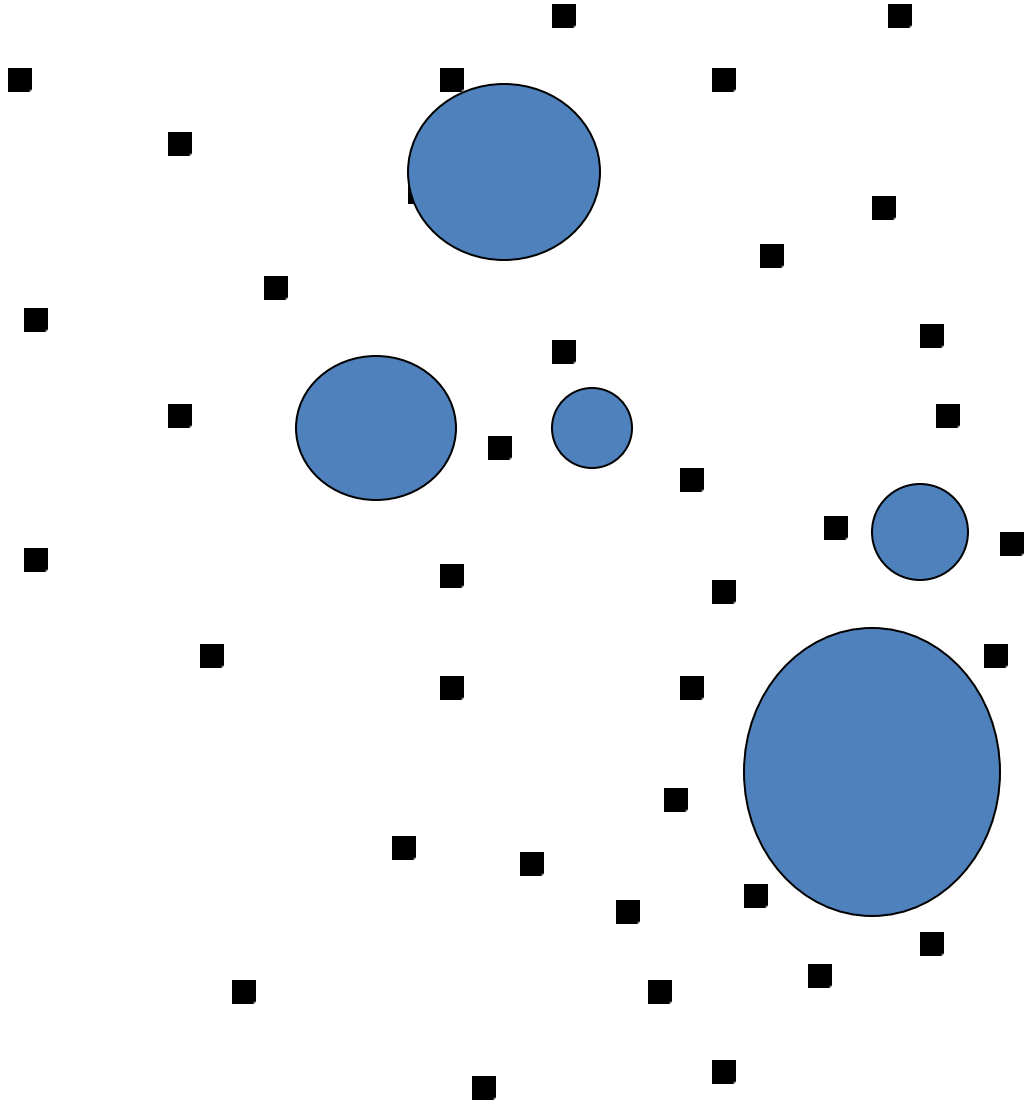

- increased urbanization: rural labor “pulled” to urban areas
- birth rates declines
- levels of education rise
- **broad-based agricultural productivity growth starts the process**
- **Mellor-Johnston Structural Transformation / Demographic Transition**
- **Characterizes the Green Revolution History of Most of Europe, Asia, and North America**
- **FUNDAMENTALLY, A SMALLHOLDER-LED MODEL**

# Broad-based growth defined

- While being a crucial driver of improved living standards, broad-based equitable growth is difficult to achieve.

# Extreme concentration of marketed maize output – Malawi, 2008/09

| | % of total sample | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Top 50% of maize sales | 1.6 | | | | | | | |
| Rest of maize sellers | 19.6 | | | | | | | |
| Farm households not selling maize | 78.8 | | | | | | | |

Source: Agricultural Inputs Support Survey (n=1904 farm households), sample frame from National Statistical Office, Government of Malawi

# Extreme concentration of marketed maize output – Malawi, 2008/09

| | % of total sample | Farm size (ha) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Top 50% of maize sales | 1.6 | 2.0 | | | | | | |
| Rest of maize sellers | 19.6 | 1.3 | | | | | | |
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# Extreme concentration of marketed maize output – Malawi, 2008/09

| | % of total sample | Farm size (ha) | Asset wealth ('000 kw) | | | | | |
|---|---|---|---|---|---|---|---|---|
| Top 50% of maize sales | 1.6 | 2.0 | 208 | | | | | |
| Rest of maize sellers | 19.6 | 1.3 | 94 | | | | | |
| Farm households not selling maize | 78.8 | 0.9 | 14 | | | | | |

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|---|---|---|---|---|---|---|---|---|
| Top 50% of maize sales | 1.6 | 2.0 | 208 | 2,510 | | | | |
| Rest of maize sellers | 19.6 | 1.3 | 94 | 204 | | | | |
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# Extreme concentration of marketed maize output – Malawi, 2008/09

| | % of total sample | Farm size (ha) | Asset wealth ('000 kw) | Maize sales (kgs) | Total crop sales ('000 kw) | Non-farm income ('000 kw) | | |
|---|---|---|---|---|---|---|---|---|
| Top 50% of maize sales | 1.6 | 2.0 | 208 | 2,510 | 283 | 101 | | |
| Rest of maize sellers | 19.6 | 1.3 | 94 | 204 | 84 | 31 | | |
| Farm households not selling maize | 78.8 | 0.9 | 14 | 0 | 51 | 12 | | |

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# Extreme concentration of marketed maize output – Malawi, 2008/09

| | % of total sample | Farm size (ha) | Asset wealth ('000 kw) | Maize sales (kgs) | Total crop sales ('000 kw) | Non-farm income ('000 kw) | female headed (%) | |
|---|---|---|---|---|---|---|---|---|
| Top 50% of maize sales | 1.6 | 2.0 | 208 | 2,510 | 283 | 101 | 13 | |
| Rest of maize sellers | 19.6 | 1.3 | 94 | 204 | 84 | 31 | 25 | |
| Farm households not selling maize | 78.8 | 0.9 | 14 | 0 | 51 | 12 | 28 | |

Source: Agricultural Inputs Support Survey (n=1904 farm households), sample frame from National Statistical Office, Government of Malawi

# Extreme concentration of marketed maize output – Malawi, 2008/09

| | % of total sample | Farm size (ha) | Asset wealth ('000 kw) | Maize sales (kgs) | Total crop sales ('000 kw) | Non-farm income ('000 kw) | female headed (%) | Subsidized fertilizer received (kgs/hh) |
|---|---|---|---|---|---|---|---|---|
| Top 50% of maize sales | 1.6 | 2.0 | 208 | 2,510 | 283 | 101 | 13 | 166 |
| Rest of maize sellers | 19.6 | 1.3 | 94 | 204 | 84 | 31 | 25 | 85 |
| Farm households not selling maize | 78.8 | 0.9 | 14 | 0 | 51 | 12 | 28 | 60 |

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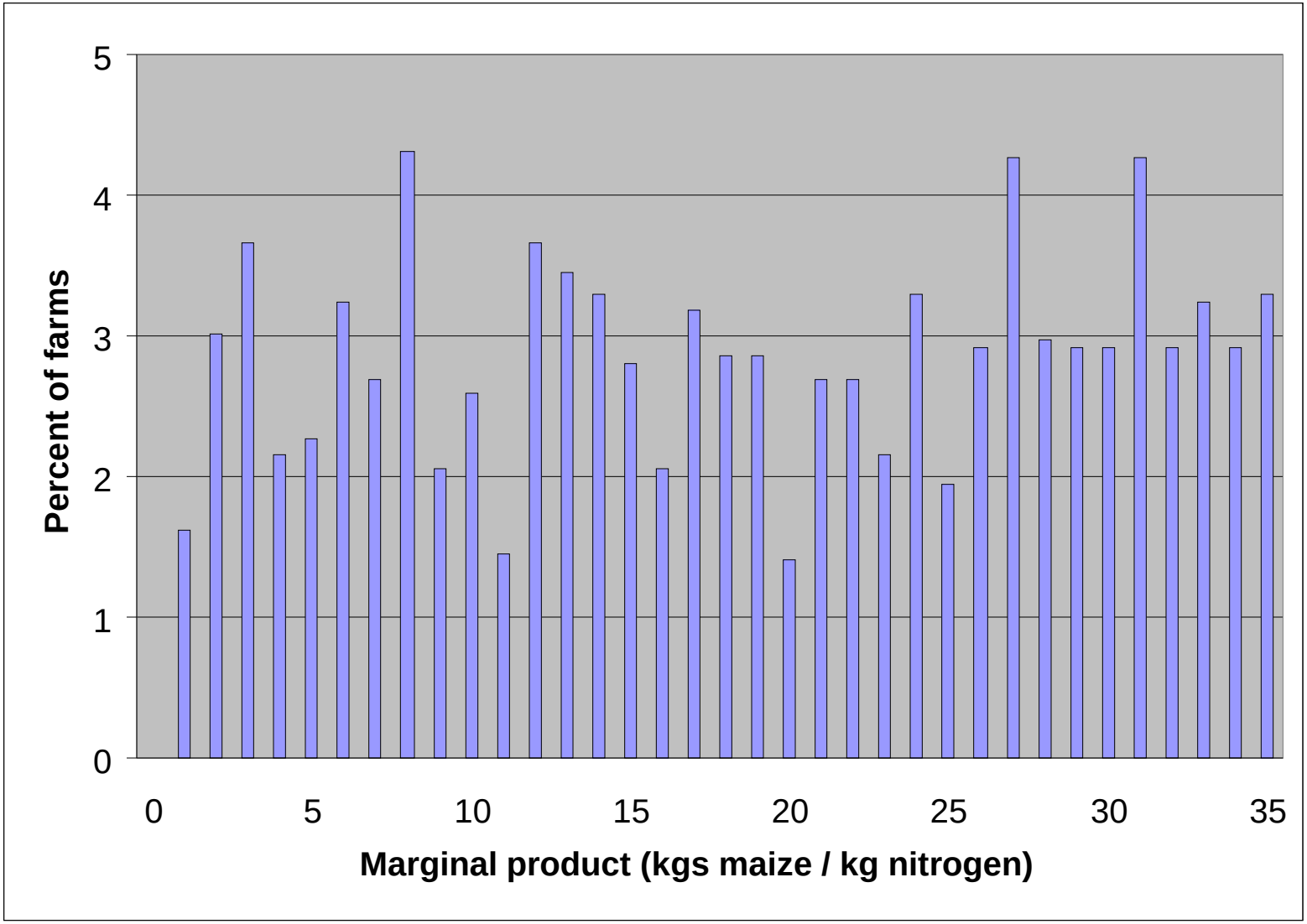
Source: Agricultural Inputs Support Survey (n=1904 farm households), sample frame from National Statistical Office, Government of Malawi

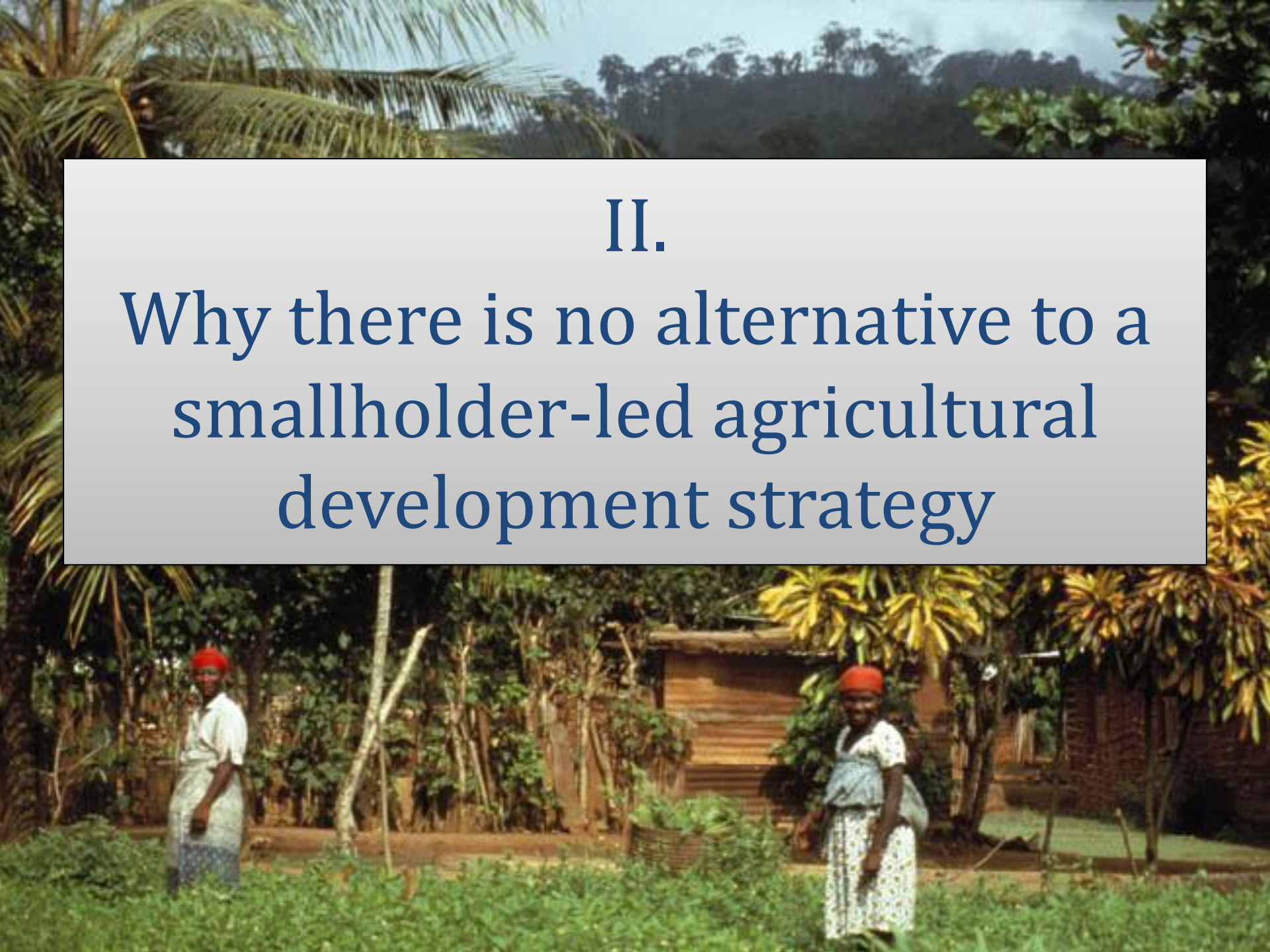
# Two major challenges for success of broad-based agricultural commercialization strategies:

1. Addressing asset constraints that prevent a large % of rural population from being able to respond to growth opportunities and incentives
2. Raising the productivity of the assets that poor farm households do have

# Variation in farmers' efficiency of fertilizer use on maize, Agroecological Zone IIa, Zambia




Note: Zone IIa is a relatively high-potential zone suitable for intensive maize production



# II.
# Why there is no alternative to a smallholder-led agricultural development strategy

# Why there is no alternative to a smallholder-led agricultural development strategy

- 50-70% of the population is engaged primarily in agriculture
- Agricultural growth *with* poverty reduction requires that smallholders be the engine
  - Large-farm-led model → latifundia
- Multiplier effects of agricultural growth are highest in smallholder agriculture
- Broad-based agricultural growth leads to virtuous symbiotic rural-urban development

# III.
# Evidence on returns to alternative investments and policies to achieve broad based growth

# Ranking of Alternative Investments: Meta-Study Evidence from Asia and Africa

| | The Economist | IFPRI study |
|---|---|---|
| Policies | | |
| Road investment | | |
| Agricultural R&D | | |
| Agricultural extension services | | |
| Credit subsidies | | |
| Fertilizer subsidies | | |
| Irrigation | | |

# Ranking with respect to ***agricultural growth:*** Evidence from Asia

| | The Economist | IFPRI |
|---|---|---|
| Policies | 1 | |
| Road investment | 2 | 1 |
| Agricultural R&D | 3 | 2 |
| Agricultural extension services | 4 | |
| Credit subsidies | 7 | 3 |
| Fertilizer subsidies | 5 | 4 |
| Irrigation | 6 | 5 |

# Ranking with respect to ***poverty reduction:*** Evidence from Asia

| | The Economist | IFPRI |
|---|---|---|
| Policies | 1 | |
| Road investment | 2 | 1 |
| Agricultural R&D | 3 | 2 |
| Agricultural extension services | 5 | |
| Credit subsidies | 7 | 3 |
| Fertilizer subsidies | 4 | 4 |
| Irrigation | 6 | 5 |

# IV.
# Priority Strategies for CAADP Country Investment Plans

# Three basic pathways

1. Strategies that can greatly raise farm productivity and that are appropriate for 1 hectare farm conditions
2. Strategies that can shift composition of farm activities from low-value / low-return activities to high-return activities
3. Strategies that expand the rural poor's access to productive assets

# Priority Strategies for CAADP CIPs

1. Strategies to improve the *"enabling environment"* (e.g. working within government ministries to improve *quality* of policy and public investments)
   - **"Rules-based" operations of governments in markets, not unpredictable interventions**

# Priority Strategies for CAADP CIPs

1. Strategies to improve the *"enabling environment"* (e.g. working within government ministries to improve *quality* of policy and public investments)

   – **Promoting regional trade with stable policies would help both farmers and consumers**

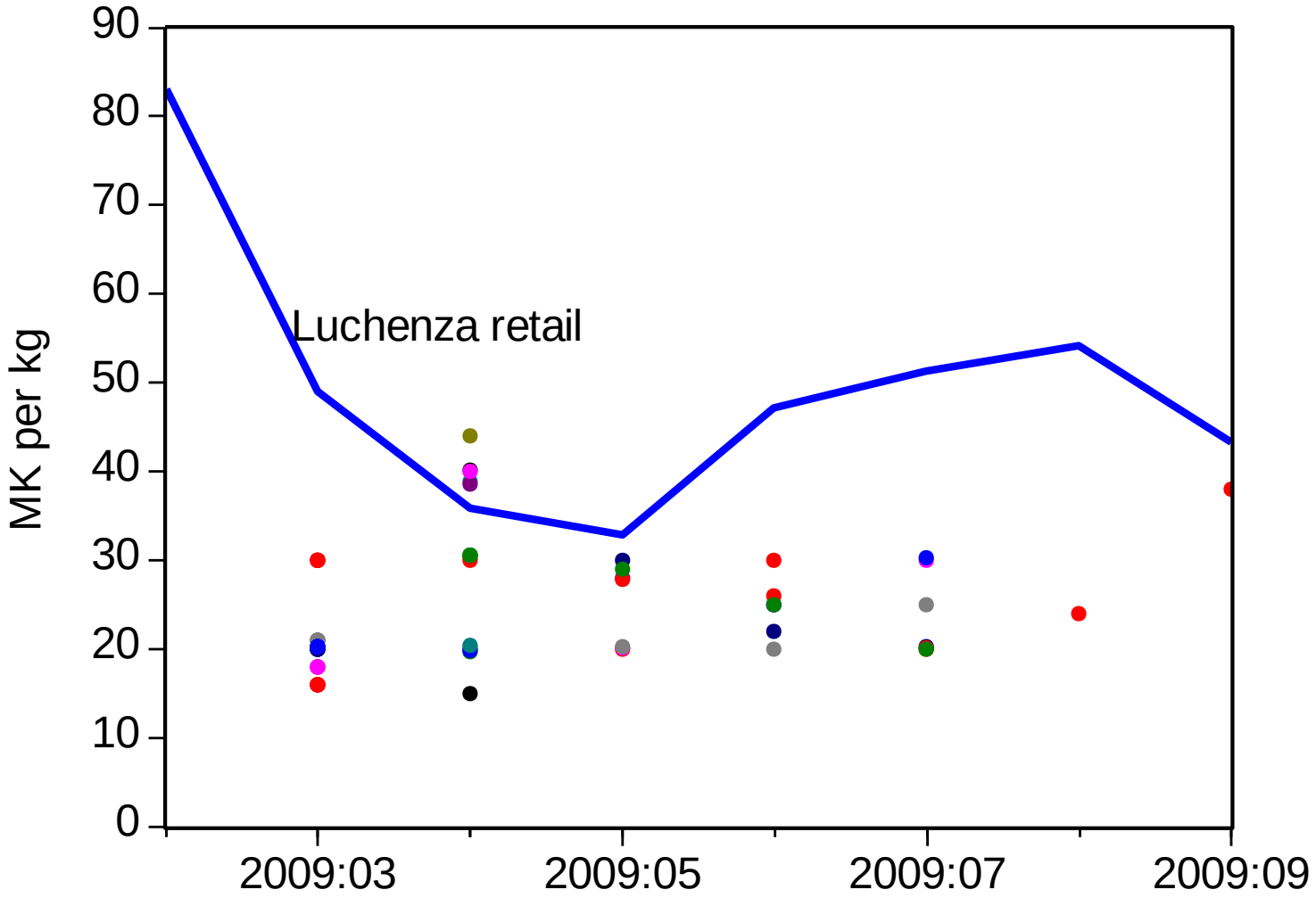
# Priority Strategies for CAADP CIPs

2. Improve allocation of public resources in ways that encourage broad-based economic growth
   - Improved seed generation systems → expand support to the NARs
   - Improved agronomic and farm management practices → expand support for viable farm extension systems
   - Road, port infrastructure, feeder roads
   - Basic education

# Priority Strategies for CAADP CIPs

3. Training programs that reach poor and women farmers
   - Functional literacy (not an agricultural program but an important adjunct to help agricultural programs effectively reach women)
   - Crop / animal husbandry to improve productivity and incomes for women farmers marketing skills
   - Marketing training

# Farm-gate maize prices compared to retail prices, Mulanje District, Malawi, 2009



# Priority Strategies for CAADP CIPs

4. Programs that address the increasingly severe land access problems facing smallholder agriculture
   a. Programs to develop improved farm technologies appropriate for 1 hectare farms
   b. Programs that support small farm entry into higher-value crops with high growth opportunities
      - Pay attention to gender barriers
   c. Open up unutilized land for small farm-based expansion – Gokwe example

# Priority Strategies for CAADP CIPs

5. Invest in locally managed agricultural policy institutes that can:
   - Produce credible and timely research to guide policy discussion
   - Work with local media → shape mainstream ideas
   - Serve as both a resource and a watchdog over public policy process
   - Provide long-term support for African university capacity building would help raise the supply of local analysts

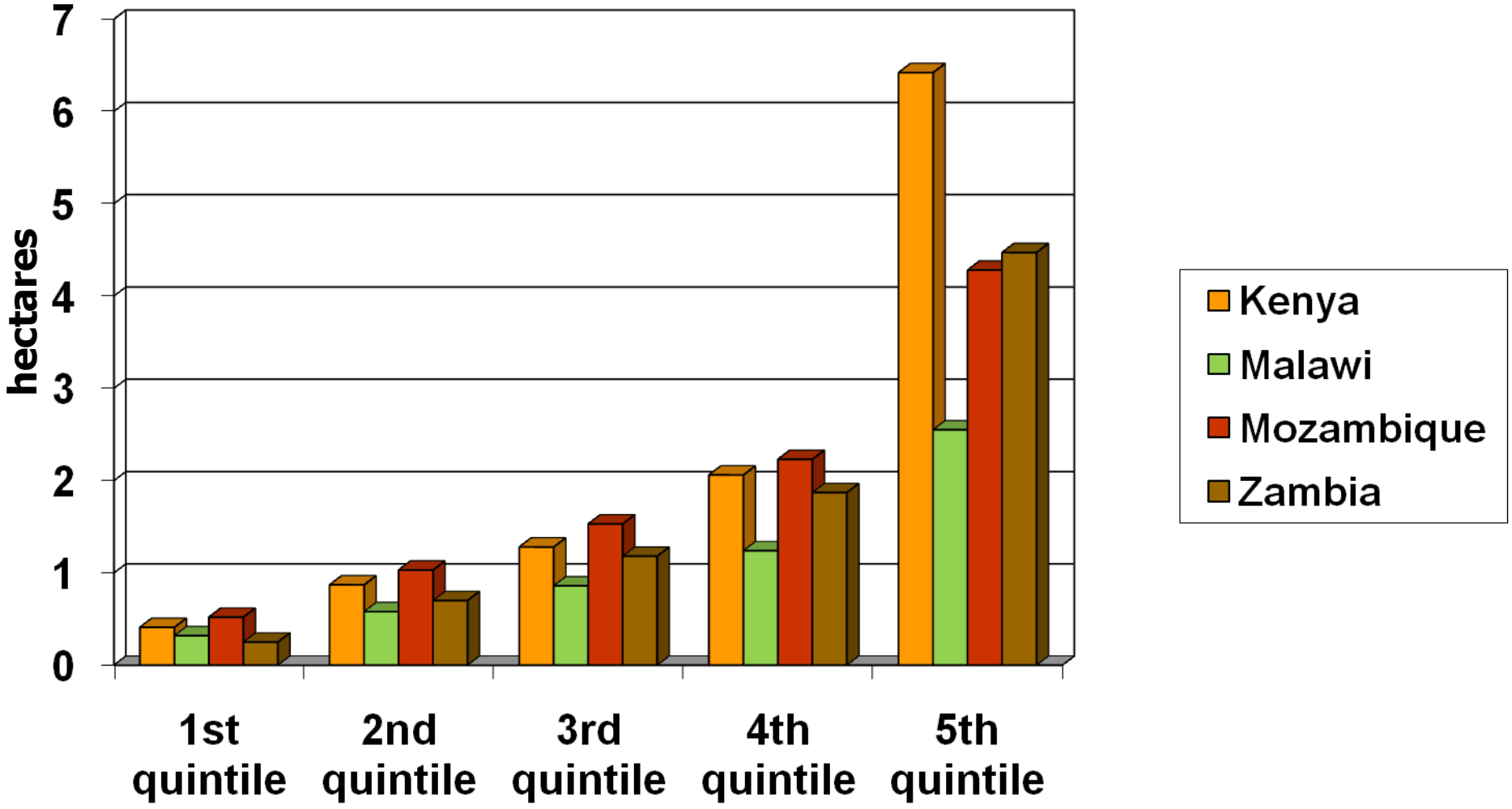

Thank You

$$\frac{Y}{L} = \frac{Y}{A} * \frac{A}{L}$$

**Cost of production = $\underline{\text{cost of all inputs/unit land}}$**

**bags produced /unit land**

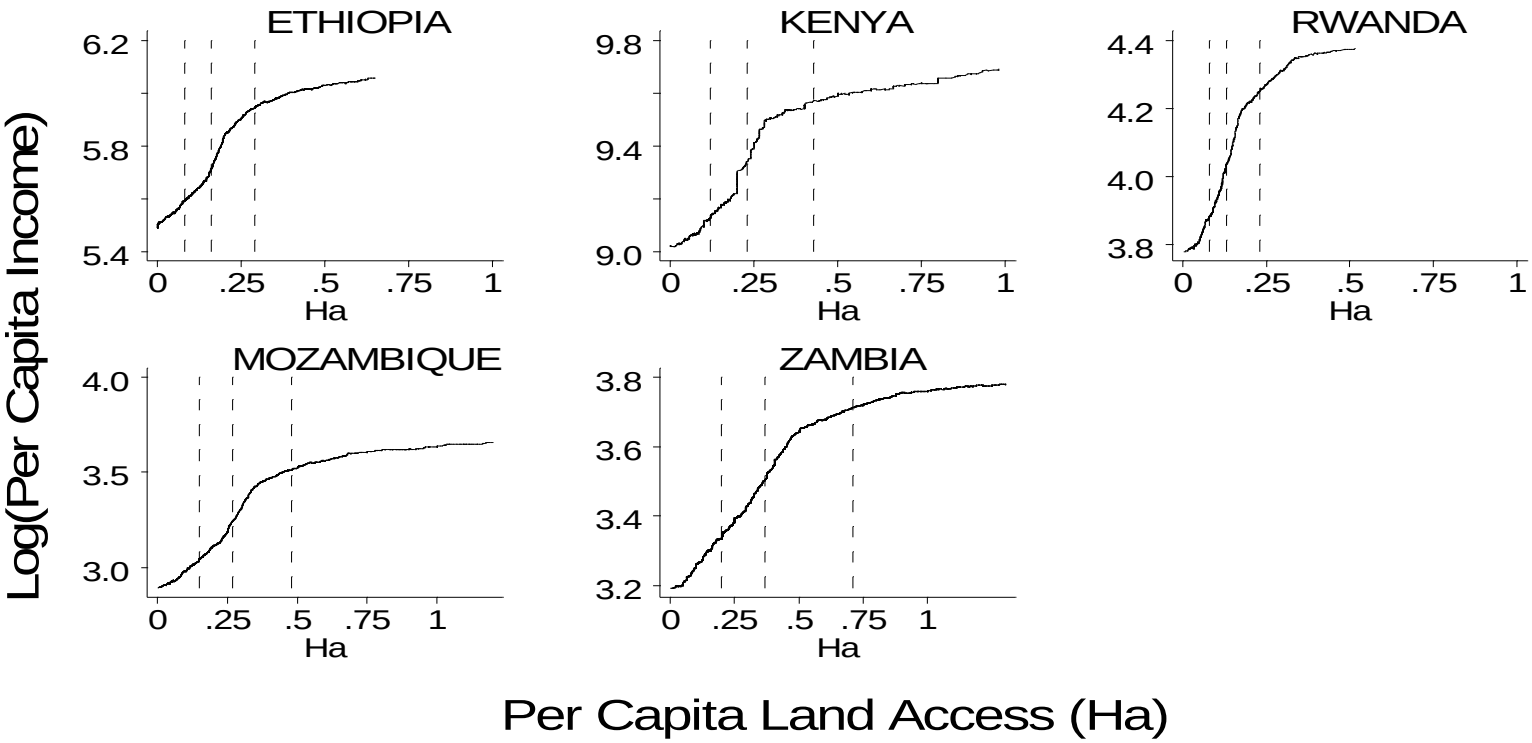
# Most smallholder farms lack the land and other resources to produce a surplus



# Table 1. Land-to-person ratio (10 year average) in selected countries

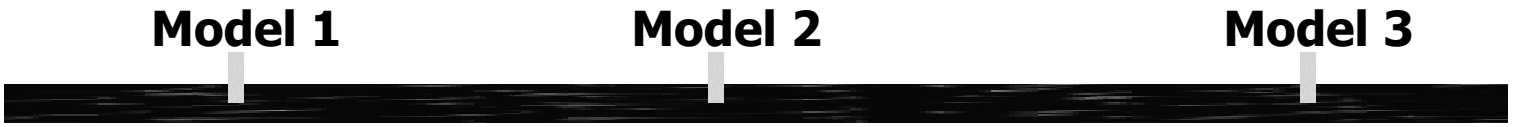
| | 1960-69 | 1970-79 | 1980-89 | 1990-99 | 2000-09 | 2000-09 land-person ratio as % of 1960-69 |
|---|---|---|---|---|---|---|
| Ethiopia | 0.501 | 0.444 | 0.333 | 0.224 | 0.218 | 43.5% |
| Zambia | 0.643 | 0.607 | 0.398 | 0.342 | 0.297 | 46.2% |
| Kenya | 0.462 | 0.364 | 0.305 | 0.264 | 0.219 | 47.4% |
| Uganda | 0.655 | 0.569 | 0.509 | 0.416 | 0.349 | 53.3% |
| Malawi | 0.480 | 0.466 | 0.357 | 0.304 | 0.307 | 64.0% |
| Zimbabwe | 0.613 | 0.550 | 0.452 | 0.420 | 0.469 | 76.5% |
| Rwanda | 0.212 | 0.213 | 0.195 | 0.186 | 0.174 | 82.1% |
| Mozambique | 0.356 | 0.337 | 0.320 | 0.314 | 0.294 | 82.6% |
| Ghana | 0.646 | 0.559 | 0.508 | 0.492 | 0.565 | 87.5% |
| Nigeria | 0.982 | 0.860 | 0.756 | 0.769 | 0.898 | 91.4% |

Source: FAO STAT (2010)




Note: The vertical lines are drawn at 25th, 50th, and 75th percentiles of per capita land owned for each country. The top 5 percent of observations are excluded from the graphs because lines are sensitive to a few extreme cases.

# Competing models of the role of state and private sector in food markets:




**Rely on markets; state role limited to:**

- Public goods investment
- Regulatory framework
- Strengthening of institutions / property rights

**Primary reliance on markets**

**- but role for *rules-based* state operations**

- e.g., buffer stock release to defend stated ceiling price
- Marketing board purchases at stated price announced in advance
- Transparent rules for initiating state imports

**Role for markets and *discretionary* state intervention**

- Trade policies and marketing board activities change unpredictably
- Justification for unconstrained role for state interventions to correct for market failures