Africa’s Evolving Food Systems:
Drivers of change and the scope for influencing them

T.S. Jayne, Lulama Traub, Ferdinand Meyer, Milu Muyanga, Jordan Chamberlin, Chance Kabaghe

Presentation at the 1st Annual Conference of the Regional Network of Agricultural Policy Research Institutes in East and Southern Africa

Lusaka, Zambia
November 4-5, 2014
Four major trends
Trend #1

The “Youth Bulge”
Motivating fact:
looming employment challenge in SSA

Age pyramid:
rural SSA, 2015

62% < 25 years old

Male
Female
Jobs by sector, Sub-Saharan Africa

Source: World Bank (Filmer and Fox), 2014
Jobs by sector, Sub-Saharan Africa

Source: World Bank (Filmer and Fox), 2014
Trend #2

Rising global interest in Africa’s arable land
Nine countries contain 90% of Africa’s unutilized arable land

<table>
<thead>
<tr>
<th>Country</th>
<th>Non-forested unutilized land(^1) (million ha)</th>
<th>Proportion</th>
<th>Cumulative Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRC</td>
<td>84.8</td>
<td>46.5%</td>
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</tr>
<tr>
<td>Angola</td>
<td>18.9</td>
<td>10.4%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Congo</td>
<td>12.9</td>
<td>7.1%</td>
<td>63.9%</td>
</tr>
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<td>Zambia</td>
<td>10.8</td>
<td>5.9%</td>
<td>69.9%</td>
</tr>
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<td>Cameroon</td>
<td>10.5</td>
<td>5.7%</td>
<td>75.6%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>9.0</td>
<td>4.9%</td>
<td>80.5%</td>
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<tr>
<td>CAR</td>
<td>7.1</td>
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<td>84.4%</td>
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<td>Gabon</td>
<td>6.5</td>
<td>3.6%</td>
<td>88.0%</td>
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<td>Sudan</td>
<td>5.8</td>
<td>3.2%</td>
<td>91.2%</td>
</tr>
<tr>
<td>Rest of Africa (n=45)</td>
<td>8.8%</td>
<td></td>
<td>100.0%</td>
</tr>
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• Anticipate:
  – Rising land prices
  – Greater incentives to use land-saving technologies (e.g., fertilizer, high-yield seeds, irrigation)

• Meteoric rise of medium-scale farms
Table 2: Changes in farm structure among small- and medium-scale farmers in Zambia (2009 - 2012)

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<th>Landholding size Category</th>
<th>Number of farms</th>
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<td>0 – 2 ha</td>
<td>638,118</td>
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<td>13,839</td>
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<td>Total</td>
<td>820,341</td>
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Participation in output markets

Largest smallholder farms (9%) consistently doing better

Source: MACO CFS 2000/1 to 2010/11 and authors’ computations
Major Question:

Is rapid land acquisition by medium/large farms foreclosing smallholder-based agricultural development?
Trend #3

Land degradation in smallholder farming areas
Agricultural intensification in Kenya

Figure 4: Net crop income per hectare cultivated
Variation in farmers’ efficiency of fertilizer use on maize, Agro-ecological Zone IIa, Zambia

Note: Zone IIa is a relatively high-potential zone suitable for intensive maize production.
Trend #4

Urbanization

• rise of an African middle class, urban income growth

• growth in food consumption outstripping growth in food production
Food Demand Outstripping Production in Africa

High-Value Commodity Production and Consumption Change (2011/13 to 2023)

Cereal Production and Consumption Change (2011/13 to 2023)

Source: Matthey, FAO Trade Division
Production in Asia

High-Value Commodity Production and Consumption Change
(2011/13 to 2023)

Cereal Production and Consumption Change
(2011/13 to 2023)

Source: Matthey, FAO Trade Division
Production in Latin America

High-Value Commodity Production and Consumption Change (2011/13 to 2023)

- Beef
- Poultry
- Dairy
- Vegetable Oil
- Sugar

Cereal Production and Consumption Change (2011/13 to 2023)

- Rice
- Wheat
- Coarse Grains

Source: Matthey, FAO Trade Division
The Americas are increasingly the largest net exporters

Note: Agriculture and fish products included in the Outlook

Source: Matthey, FAO Trade Division
Share of SSA’s imported processed and high-value food products from outside Africa

Source: ITC Trade Map, 2014
Other “mega-trends” discussed in ReNAPRI paper:

• Rising world food/energy/water prices
• Increasing climate variability
• Increasing productivity / competitiveness of other countries’ exports (dairy, FFV, oilseeds, grains)
Major message:

• Don’t accept all these “megatrends” as inevitable
  – Some trends are highly uncertain, being dependent on the time path of other trends
  – Policy can influence the trajectories of some of them / others less so
Recognize that agriculture can’t achieve economic transformation on its own

• Non-farm sectors must also create employment
• What does this mean? Increase investment in:
  1. education (including African-based policy analysis units)
  2. Agricultural R&D, agricultural extension, programs to restore long-term soil fertility
  3. Physical infrastructure to reduce the costs of production in both industry and agriculture and promote employment
  4. industrial policy -- promote private investment and job growth in local non-farm sectors, which simultaneously stimulates investment in local agri-food systems
Take-away messages

- Anticipate the ‘mega-trends’
- Consider how policy can ‘bend’ the trends
- Recognize that agriculture can’t do it all alone
- Consider agricultural, poverty reduction, and employment objectives in a coordinated manner
Importance of national policy units

- Shifting the center of gravity of ag policy analysis

- Is development about
  - The markets right?
  - The institutions right? Or more fundamentally...
  - getting our values right