Mega-trends and the Future of African Economies

T.S. Jayne, Lulama Traub, Ferdinand Meyer, Jordan Chamberlin, Milu Muyanga, Felix Yeboah

Motivating fact: looming employment challenge in SSA

Age pyramid: rural SSA, 2015

62% < 25 years old
Objectives

• To anticipate the ‘mega-trends’
• To consider how policy can ‘bend’ the trends

• Recognizing
  – variation across countries
  – the trends we highlight are not the only ones
  – policy-dependent outcomes
Figure 1: Classification of Megatrends According to Predictability and Potential influence via Policy

- Rising world food prices
- Youth bulge/labor force expansion
- Increased demand for land in Africa
- Land degradation
- Climate change
- Rapid/broad-based income growth

Likelihood of arising:
- High
- Moderate
- Low

Potential for influence via policy:
- High
- Moderate
- Low
Six major trends
Trend #1

The “Youth Bulge”
62% < 25 years old

Source: UN Pop Council, 2013
Motivating fact: looming employment challenge in SSA

Source: UN 2013
Trend #2

Growth in wage jobs < number of people entering labor force

⇒ most Africans will remain primarily engaged in farming at least over next 15-20 years
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
Employment trends: Ethiopia

Source: Groningen Growth and Development Centre, 2014
Employment trends: Tanzania

Source: GGDC, 2014
Employment trends: Senegal

Source: GGDC, 2014
Employment trends: Mauritius

Source: GGDC, 2014
Trend #3

Food consumption outstripping 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)
Production in Asia

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

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

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

- Sugar
- Vegetable Oil
- Beef
- Dairy
- Poultry

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

- Coarse Grains
- Rice
- Wheat
- Rice
- Wheat

Production (MT) vs. Consumption (MT)
The Americas are increasingly the world’s food basket

Note: Agriculture and fish products included in the Outlook
Share of SSA’s imported processed and high-value food products from outside Africa

Source: ITC Trade Map, 2014
Trend #4

Major scramble for Africa’s arable land
Nine countries contain 90% of Africa’s unutilized arable land

<table>
<thead>
<tr>
<th></th>
<th>Non-forested unutilized land¹ (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>
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<tr>
<td>Congo</td>
<td>12.9</td>
<td>7.1%</td>
<td>63.9%</td>
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<tr>
<td>Zambia</td>
<td>10.8</td>
<td>5.9%</td>
<td>69.9%</td>
</tr>
<tr>
<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>
<td>3.9%</td>
<td>84.4%</td>
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<tr>
<td>Gabon</td>
<td>6.5</td>
<td>3.6%</td>
<td>88.0%</td>
</tr>
<tr>
<td>Sudan</td>
<td>5.8</td>
<td>3.2%</td>
<td>91.2%</td>
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<tr>
<td>Rest of Africa (n=45)</td>
<td>8.8%</td>
<td></td>
<td>100.0%</td>
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Trend #4: Rising interest in Africa’s arable land

• Meteoric rise of medium-scale farms
  – Giving rise to
    • rapid changes in farm structure
    • Rapid rise in land markets
    • Rising land prices
    • changes in farm technology and markets
Table 2: Changes in farm structure among small- and medium-scale farmers in Zambia (2009 - 2012)

<table>
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<th>Landholding size Category</th>
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<tr>
<td>0 – 2 ha</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
• Anticipate:
  – Rising land prices
  – Rise of land markets
  – Increased concentration of farmland
  – Demise of customary tenure systems
  – Increasing land scarcity for rural-born Africans
Major Question:

Is rapid land acquisition by medium/large farms foreclosing smallholder-based agricultural development?
Trend #5

Land degradation in smallholder farming areas
The importance of SOM


![Graph showing the marginal value product of applied nitrogen against plot carbon content. The x-axis represents plot carbon content (%) ranging from 2 to 6, and the y-axis represents marginal value product of applied nitrogen ranging from 0 to 1000. The graph also shows the price of nitrogen in Kshs 200/kg with a horizontal line at 200.]
A vicious cycle of declining productivity in densely populated areas?

1. Low crop response rates to N
2. Deficiencies in SOC and micronutrients / acidification
3. Reduced fallows / increased fertilizer use
4. Population growth
5. Land pressures / incentives to intensify
Trend #6

Climate change
Figure 1: Classification of Megatrends According to Predictability and Potential influence via Policy
Figure 2: Scenario matrix for African Food System

- **Scenario 1: Latifundia**
- **Scenario 2: Africa Rises**
- **Scenario 3: Slow & steady wins the race**
- **Scenario 4: Dark Continent**
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
Main conclusions:

1. Benefits to considering land, agricultural, and employment objectives in a coordinated manner

2. Need to urgently consider how land allocation patterns are affecting the potential for inclusive agricultural development, employment multipliers, and poverty reduction in future

3. Re-double investments in sustainable forms of agricultural productivity growth
   - to re-capture the burgeoning urban markets for local farmers
   - To generate growth multipliers /employment in non-farm economy

4. Huge need for youth to acquire the skills that will match the types of jobs that will be available in 2020-2040
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Project web site: http://fsg.afre.msu.edu/fsp/index.htm
Labor productivity: Senegal

- **Agriculture**: A steady decline in productivity from 1960 to 2010.
- **Manufacturing** and **Business/Trade**: A decline in productivity from 1960 to 2010, with a more pronounced decrease in manufacturing.

The chart shows the productivity trend for different sectors in Senegal over the years from 1960 to 2010.
Labor productivity: Tanzania

![Graph showing labor productivity in Tanzania from 1960 to 2010. The graph plots productivity in $/worker over the years. The productivity in manufacturing shows a peak around 1975 and then declines, while productivity in agriculture remains relatively stable.](image-url)
Labor productivity: Ghana

![Graph showing labor productivity in Ghana from 1960 to 2010. The graph compares productivity in agriculture, manufacturing, and business/trade sectors.](image-url)