DAVID VS. GOLIATH
THE REVOLUTION IN AFRICA'S FARM STRUCTURE

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June 17th, 2014
The best way to predict the future is to create the future we want.
Outline: Drivers of Change

1. Megatrends
   - Global
   - Regional

2. David: natural resource allocation - land
   - How much unused arable land actually remains available in Africa?
   - Who is gaining access to this remaining land?
   - What are the emerging land constraints among smallholder in Africa?

3. Goliath: Private sector investment
   - Large-scale Land Aquisitions
   - Changing investment patterns
1. Global Drivers: Rising food and energy prices
   • Underpinned by rising income and urbanization in BRICS
   • Has resulted in a structural shift in global food demand and a new, higher equilibrium price.
   • Question is: can the world’s agricultural sector feed the growing global population?
   • All of this has resulted in global demand for Africa’s natural resources; i.e. land, water and food.
Global Driver: Rising Food Prices

Producer Price Index (2004-2006 = 100)

Source: FAOSTAT, 2013
2. Regional Drivers: Unique age demographics

- 43% of the total Sub-Saharan population is below the age of 14.
- Implies that between now and 2025 over 330 million young Africans will be entering the labor force.
- Under the most favorable scenario, the urban and non-farm sectors will be able to absorb only 200 million of the youth into gainful wage employment.
- What will happen to the other 120 million young Africans?
Africa’s Unique Age Demographics

Source: UN Pop Council, 2013
Africa’s Unique Age Demographics

Africa’s Age Pyramid: Rural Sub-Saharan Africa, 2015

- 62% < 25 years old

Source: UN Pop Council, 2013
2. Regional Drivers: Urbanization

• While the rate of urbanization is often taken as given, the rate of urban population growth is only $\frac{2}{3}$rd based on fertility rates among urban families.

• Fully $\frac{1}{3}$rd of urban population growth is rural to rural urban migration.

• Evidence indicates that migration from rural areas is not random but is driven by rural land scarcity and low profitability of smallholder agriculture.

• Raises the question on how can the agricultural sector mitigate the social and political impact of a disenfranchised youth population?
Regional Drivers: Urbanization

Total Rural Population (millions)

Source: UN Pop Council, 2013
Megatrends: Factors Shaping our Future

3. Regional Drivers: Income growth and distribution

• **Income**
  - Rising income are taken as given but evidence suggests that there is increasing concentration of wealth into the hands of a few.
  - Rising income has resulted in changing consumption patterns among the urban elite, moving away from staple commodities into high-value food items.
  - However, this change in consumption is being largely met by imports from non-African markets.
Regional Driver: income growth and distribution

GDP per capita (constant 2005 USD)

African Population by Income Class: excluding North Africa and South Africa

1980

- Poor ($0 - $4): 14.6%
- Middle-class ($4 - $20): 4.8%
- Rich (>$20): 80.6%

Source: Potts, 2012: calculated from the AfDB (2010)
African Population by Income Class: excluding North Africa and South Africa

- Poor ($0 - $4): 81.8%
- Middle-class ($4 - $20): 13.4%
- Rich (> $20): 4.8%

Source: Potts, 2012: calculated from the AfDB (2010)
Non-SSA Countries' share of High-value products imported by SSA

Source: ITC Trade Map, 2014
Recap

• Megatrends shaping Africa’s future
  1. Global food and energy prices ➔ driving global demand for SSA’s natural resources
  2. Unique population demographics ➔ implications for future unemployment
  3. Income growth and distribution ➔ implications on private sector investments.
How much unused arable land actually remains available in Africa?
Estimates of potentially available cropland

1. Potentially available cropland (PAC) estimates for Africa is about 100 million hectares
   - As low as 80 or as high as 160 million hectares- depending on assumptions imposed

2. The region's underutilized land resources are concentrated in 6 countries
   - Many of which are fragile states

3. Between one-half and two-thirds of the region's surplus land is currently under forest cover
   - Conversion of forests to cropland would entail major environmental costs
Estimates of potentially available cropland

4. Most of the continent's unexploited land resources are located far from input and output markets, and poor infrastructure
   - Limiting their economic attractiveness

5. Rural populations in rural sub-Saharan Africa are highly spatially concentrated
   - 1% of land carries 16% of the total rural population
   - 20% of land carries 76% of the total rural population
Clustering of rural populations: Zambia
Clustering of rural populations: Kenya

Design: Steve Longabaugh
Source: LandScanTM, Oak Ridge National Laboratory
Who is gaining access to this remaining land?
# Changing farm structure

Table 2: Changes in farm structure among small- and medium-scale farmers in Zambia (2009 - 2012)

<table>
<thead>
<tr>
<th>Landholding size Category</th>
<th>Number of farms</th>
<th>% change (2001-2012)</th>
<th>% of total farmland 2009</th>
<th>% of total farmland 2012</th>
<th>Share of landholding cultivated (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 2 ha</td>
<td>638,118</td>
<td>916,787</td>
<td>748,771</td>
<td>17.3%</td>
<td>24.1%</td>
</tr>
<tr>
<td>2 – 5 ha</td>
<td>159,039</td>
<td>366,628</td>
<td>418,544</td>
<td>163.2%</td>
<td>33.8%</td>
</tr>
<tr>
<td>5 – 10 ha</td>
<td>20,832</td>
<td>110,436</td>
<td>165,129</td>
<td>692.6%</td>
<td>20.3%</td>
</tr>
<tr>
<td>10 – 20 ha</td>
<td>2,352</td>
<td>35,898</td>
<td>53,454</td>
<td>2272.7%</td>
<td>12.3%</td>
</tr>
<tr>
<td>20 – 100 ha</td>
<td>--</td>
<td>9,030</td>
<td>13,839</td>
<td>53.3%**</td>
<td>9.5%</td>
</tr>
<tr>
<td>Total</td>
<td>820,341</td>
<td>1,438,779</td>
<td>1,399,737</td>
<td>70.6%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Changing farm structure

- More land cultivated/owned by medium scale than by large-scale (foreign and local)

Table 3: Comparing medium and large scale farmers cultivated land

<table>
<thead>
<tr>
<th></th>
<th>Large scale</th>
<th>Medium scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(foreign + domestic)</td>
<td>(5-100 ha)</td>
</tr>
<tr>
<td>(&gt;100 ha)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Million hectares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghana (cultivated)</td>
<td>3.08</td>
<td>4.21</td>
</tr>
<tr>
<td>Kenya (cultivated)</td>
<td>0.69</td>
<td>0.84</td>
</tr>
<tr>
<td>Zambia (owned)</td>
<td>2.11</td>
<td>2.47</td>
</tr>
</tbody>
</table>
### Characteristics of the emergent farmers' characteristics

<table>
<thead>
<tr>
<th>KENYA CASE STUDY</th>
<th>Farm-led growth strategy (n=82)</th>
<th>Non-farm led growth strategy (n=118)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heads had non-farm job</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>_civil servant</td>
<td>71%</td>
<td>68%</td>
</tr>
<tr>
<td>_private sector</td>
<td>29%</td>
<td>32%</td>
</tr>
<tr>
<td>Heads had business</td>
<td>52%</td>
<td>42%</td>
</tr>
<tr>
<td>Heads level of education:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>_informal</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>_primary</td>
<td>43%</td>
<td>24%</td>
</tr>
<tr>
<td>_secondary</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>_post-secondary</td>
<td>18%</td>
<td>47%</td>
</tr>
<tr>
<td>Father to household head:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>_landholding owned (ha)</td>
<td>94.7</td>
<td>45.1</td>
</tr>
<tr>
<td>_non-farm job</td>
<td>33%</td>
<td>38%</td>
</tr>
<tr>
<td>_some formal education</td>
<td>35%</td>
<td>40%</td>
</tr>
</tbody>
</table>
Kenya: Net value of crop production per hectare cultivated

Net crop production per hectare cultivated

'000KSh/ha cultivated

land -- cultivated (ha)
What are the emerging land constraints among the smallholders in Africa?
Kenya: Newspaper headlines -- rising land conflicts

- Man hacks four family members to death over land
- Eleven killed in violence over land in Kenya
- Jubilee promises to tackle land question
- Catechist kills woman over land dispute
- At least 40 killed in deadly Kenya land clashes
- Two land Bills set to end politicians' land greed
Shrinking farm sizes for smallholders as a result of increasing population densities

**Arable land per capita**

1960-2010

- **World**
- **Sub-Saharan Africa**
- **Zambia**

Source: World Development Indicators, World Bank
Total rural population projections

Source: UN Pop Council, 2013
Response to increasing population densities: agricultural intensification

Figure 4: Net crop income per hectare cultivated

- **Actual**
- **Simulated**
Large-Scale Land Acquisition Trends and Private Sector Investment Patterns
### LSLA in (2000-2013)

<table>
<thead>
<tr>
<th>Category</th>
<th># deals</th>
<th>Intended ha (millions)</th>
<th>ha under contract (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral agreement</td>
<td>66</td>
<td>3.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Contract signed</td>
<td>804</td>
<td>50.8</td>
<td>30.6</td>
</tr>
<tr>
<td><strong>concluded deals</strong></td>
<td><strong>870</strong></td>
<td><strong>54.5</strong></td>
<td><strong>31.8</strong></td>
</tr>
<tr>
<td>Expression of interest</td>
<td>42</td>
<td>5.5</td>
<td>n.a.</td>
</tr>
<tr>
<td>Under negotiation</td>
<td>144</td>
<td>9.1</td>
<td>n.a.</td>
</tr>
<tr>
<td><strong>Intended deals</strong></td>
<td><strong>186</strong></td>
<td><strong>14.6</strong></td>
<td>n.a.</td>
</tr>
<tr>
<td>Negotiations failed</td>
<td>50</td>
<td>5.3</td>
<td>n.a.</td>
</tr>
<tr>
<td>Contract cancelled</td>
<td>24</td>
<td>1.6</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Failed deals</strong></td>
<td><strong>74</strong></td>
<td><strong>6.9</strong></td>
<td><strong>1.5</strong></td>
</tr>
</tbody>
</table>

Land deals in the database fulfill these criteria:
- Entails sale, lease or concession
- Area of 200 hectares or more
- In low and middle income countries
- For agricultural production, timber extraction, carbon trading, mineral extraction, industry, renewable energy production, conservation, and tourism (focus in this presentation is on agriculture)

Source: Land Matrix. 2013
African countries are among the most affected

- Important concentration – top 20 countries, 74% deals, 80% size
- Top 20 – 9 African countries

Source: Land Matrix, 2013
African countries – East Africa is the most affected

Operational cases in Africa - top 20

Project not started
Startup phase (no production)
In operation (production)
Project abandoned
Unknown

Source: Land Matrix, 2013
African countries are among the most affected
Who are the primary investors in Africa?

Source: Land Matrix, 2013

<table>
<thead>
<tr>
<th>North Africa</th>
<th>West Africa</th>
<th>Central Africa</th>
<th>East Africa</th>
<th>Southern Africa</th>
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<tbody>
<tr>
<td>Saudi Arabia</td>
<td>UK</td>
<td>USA</td>
<td>Egypt</td>
<td>South Korea</td>
</tr>
<tr>
<td>UAE</td>
<td>India</td>
<td>Malaysia</td>
<td>UAE</td>
<td>South Africa</td>
</tr>
<tr>
<td>South Africa</td>
<td>Italy</td>
<td>Canada</td>
<td>USA</td>
<td>UK</td>
</tr>
<tr>
<td>Japan</td>
<td>Liberia</td>
<td>Singapore</td>
<td>Jordan</td>
<td>Brazil</td>
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<td>-</td>
<td>France</td>
<td>Belgium</td>
<td>Saudi Arabia</td>
<td>India</td>
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Global Land Use Patterns

The Jatropha hype

Source: Land Matrix, 2013
Land Use Patterns: Africa

AFRICA

Source: Land Matrix, 2013
Little effective production: Africa

Source: Land Matrix, 2013
Slowing Land Investments

Source: Land Matrix, 2013
Investment models and agrarian change

Towards new opportunities for Africa?
## Changing LSLA and Outcomes

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<tr>
<th>Independent farmer model</th>
<th>Associative farmer model</th>
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<th>Speculative 1000-day model</th>
<th>Asset management and Investment funds model</th>
<th>Nucleus estate model</th>
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High failures

- Uncertain institutional environments and the difficulty of doing business
- Technicality of the projects
- The lack of markets
- Lack of financial services
- High settling and transaction costs

Source: Boche and Anseeuw, 2013
### Changing LSLA and Outcomes

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#### High failures

- Uncertain institutional environments and the difficulty of doing business
- Technicality of the projects
- The lack of markets

#### Increased integration

- Lack of financial services
- High settling and transaction costs

#### Few inclusive models

- To overcome high risks related to settlement in less developed agrarian economies

Source: Boche and Anseeuw, 2013
Implications for agrarian development and restructuration

- Corporization of agriculture
- Closed value-chains and foreign powers
- Concentration and dualization within the agricultural sector
- Proletarization of the agricultural society
Concluding Thoughts

• Agrarian change in Africa?
  • Yes, probably
  • Very little # - With very few ‘positive’ results
  • Change not there where expected/announced, by the promoters of LSLA
  • But enduring model/paradigm – tipping point

• Lack of LT reflection, “alternative” development trajectories
  • Inclusive of sectors and actors
  • Roles of different actors
Stylized fact:

A stylized fact is often a broad generalization that summarizes some complicated statistical relationship, which although essentially true, may have inaccuracies in the detail.

http://en.wikipedia.org/wiki/Stylized_fact