EMERGING LAND ISSUES IN SUB-SAHARAN AFRICA AGRICULTURE

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Conclusion 1

Access to land has become a bidding constraint in sub-Saharan Africa smallholder farming
High population densities

- Population densities in many sub-Saharan Africa are much higher than they were two decades ago
  - Rural population density is projected to increase by 48% in sub-Saharan Africa in the next 35 years
  - Population density is endogenous- what are the drivers of population growth in sub-Saharan Africa?
Age pyramids, rural SSA, 2015

62% < 25 years old

Source: UN Pop Council, 2013
Total rural population projections

Source: UN Pop Council, 2013
The rising rural population densities are profoundly affecting farming systems

- Shrinking farm sizes
  - Limited scope of accessing land especially among the smallholders
  - Limited off-farm opportunities
Shrinking farm sizes

**Arable land per capita**
1960-2010

Source: World Development Indicators, World Bank
Agricultural intensification

- Are increasing population densities inducing innovations aimed at intensifying the use of land?
  - Consistent with the induced innovation theories of Boserup (1965) and Ruttan and Hayami (1971)
Agricultural intensification in Kenya

Figure 4: Net crop income per hectare cultivated
Agricultural intensification thresholds

- Intensification is not possible beyond some population density thresholds
  - 13% of the rural population in Kenya live in areas beyond the thresholds
  - Signs of unsustainable agricultural intensification—reduced fallows periods; soil mining; soil acidity; etc.
Conclusion 2

Increasing conflicts over land
Local analysts point to historical land injustices as the main cause of the 2007 post-election violence and the 2014 killings in the coastal region of Kenya.
Conclusion 3

Africa’s arable land is highly concentrated, both between and within countries.
Nine (9) countries contain 90% of Africa’s unutilized potentially arable crop (PAC) land

<table>
<thead>
<tr>
<th>Country</th>
<th>Non-forested unutilized land (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>
<td>46.5%</td>
</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>
<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>
</tr>
<tr>
<td>CAR</td>
<td>7.1</td>
<td>3.9%</td>
<td>84.4%</td>
</tr>
<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>
</tr>
<tr>
<td>Rest of Africa (n=45)</td>
<td></td>
<td>8.8%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Unutilized PAC land characteristics

1. Potentially available cropland (PAC) estimates for Africa is about 200 million hectares
   • As low as 50-100 million hectares- depending on assumptions imposed

2. The region's underutilized land resources are concentrated in 9 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

4. Most of the continent's unexploited land resources are located far from input and output markets
   • Limiting their economic attractiveness
Clustering of rural populations in sub-Saharan Africa

Rural populations are highly spatially concentrated

Source: AfriPop (rural areas only)
Clustering of rural populations in Zambia & Kenya
Conclusion 4

Rapid rise of medium-scale (MS) farmers (5-100 ha)
### 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</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>24.1%</td>
</tr>
<tr>
<td>2 – 5 ha</td>
<td>159,039</td>
<td>366,628</td>
<td>418,544</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>20.3%</td>
</tr>
<tr>
<td>10 – 20 ha</td>
<td>2,352</td>
<td>35,898</td>
<td>53,454</td>
<td>12.3%</td>
</tr>
<tr>
<td>20 – 100 ha</td>
<td>–</td>
<td>9,030</td>
<td>13,839</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>100.0%</td>
</tr>
</tbody>
</table>

Crop sales by farm size, Zambia

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

Largest farms (9%) consistently doing better
Conclusion 5

Land controlled by medium scale (MS) farms exceeds that of large scale (LS) (foreign + domestic) and smallholders
### More land cultivated/owned by MS than by LS (local & foreign investors)

<table>
<thead>
<tr>
<th>Land - cultivated/owned</th>
<th>Large scale</th>
<th>Medium-scale (5-100 ha)</th>
<th>Small-scale (0-5 ha)</th>
<th>Total land controlled</th>
<th>PAC remaining (arable + grasslands)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ghana</strong>* (2005)</td>
<td>3.08</td>
<td>4.21</td>
<td>5.08</td>
<td>= 12.37</td>
<td>3.56</td>
</tr>
<tr>
<td><strong>Kenya</strong>* (2006)</td>
<td>0.69</td>
<td>0.84</td>
<td>2.63</td>
<td>= 4.16</td>
<td>1.01</td>
</tr>
<tr>
<td><strong>Zambia</strong> ** (2012)</td>
<td>2.11</td>
<td>2.47</td>
<td>2.09</td>
<td>= 6.67</td>
<td>3.35</td>
</tr>
</tbody>
</table>

**NOTE:** *cultivated; ** owned
Characteristics of medium-scale farmers

• In most countries:
  • Urban-based
  • Primary employment = salaried job
  • Relatively highly educated
  • Primarily men

• In central / northern Ghana:
  • Most started out as small-scale farmers → scaled-up
  • Acquired land from customary authorities
  • Relatively land-abundant environment
Policy questions/implications

- Africa is enjoying 5% annual agricultural growth rates – who is driving this growth?
- Are agricultural/employment/poverty reduction strategies compatible with countries’ land policies?
- Is smallholder driven development strategy predicated on increased land access by smallholder farmers (e.g. CAADP) is viable?
- The rate of non-farm job growth will likely depend on how inclusive agricultural growth is – multipliers effects
- Solid commitment to inclusive agricultural development require area expansion and a change in land allocation policies
Food Policy Special Issue

• Boserup and Beyond: Mounting Land Pressures And Development Strategies in Africa

• Devoted on emerging agricultural issues in Africa

• Available at
  

• National Conference on Emerging Land Issues in Kenyan Agriculture and their implications for Food Policy and Institutional Reforms

  • October 30\textsuperscript{th}, 2014
Acknowledgements

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