Changing dynamics around land in Africa


Paper presented at ReNAPRI’s 1st Annual Regional Agricultural Outlook Symposium
Taj Pamodzi Hotel, Lusaka, Zambia, November 4, 2014
Conclusion #1

Population densities in sub-Saharan Africa are much higher than they were two decades ago.
Total rural population projections

Source: UN Pop Council, 2013
Shrinking farm sizes

Arable land per capita
1960-2010

Source: World Development Indicators, World Bank
## Hectares of arable land per person in agriculture (10 year average)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>0.501</td>
<td>0.444</td>
<td>0.333</td>
<td>0.224</td>
<td>0.218</td>
<td>43.5%</td>
</tr>
<tr>
<td>Zambia</td>
<td>0.643</td>
<td>0.607</td>
<td>0.398</td>
<td>0.342</td>
<td>0.297</td>
<td>46.2%</td>
</tr>
<tr>
<td>Kenya</td>
<td>0.462</td>
<td>0.364</td>
<td>0.305</td>
<td>0.264</td>
<td>0.219</td>
<td>47.4%</td>
</tr>
<tr>
<td>Uganda</td>
<td>0.655</td>
<td>0.569</td>
<td>0.509</td>
<td>0.416</td>
<td>0.349</td>
<td>53.3%</td>
</tr>
<tr>
<td>Malawi</td>
<td>0.480</td>
<td>0.466</td>
<td>0.357</td>
<td>0.304</td>
<td>0.307</td>
<td>64.0%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.613</td>
<td>0.550</td>
<td>0.452</td>
<td>0.420</td>
<td>0.469</td>
<td>76.5%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>0.212</td>
<td>0.213</td>
<td>0.195</td>
<td>0.186</td>
<td>0.174</td>
<td>82.1%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>0.356</td>
<td>0.337</td>
<td>0.320</td>
<td>0.314</td>
<td>0.294</td>
<td>82.6%</td>
</tr>
<tr>
<td>Ghana</td>
<td>0.646</td>
<td>0.559</td>
<td>0.508</td>
<td>0.492</td>
<td>0.565</td>
<td>87.5%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>0.982</td>
<td>0.860</td>
<td>0.756</td>
<td>0.769</td>
<td>0.898</td>
<td>91.4%</td>
</tr>
</tbody>
</table>
Conclusion #2

Population growth in densely populated areas is contributing to growing land pressures and unsustainable forms of agricultural intensification.
Agricultural intensification

- Productivity growth on existing farmland will be the most desirable way of raising food production
- Rising population densities are influencing household behavior and farming systems in sub-Saharan Africa
ETHIOPIA

Kilogram of fertilizer used per hectare cultivated
MALAWI

Kilograms of fertilizer use per hectare cultivated
MALAWI

Gross value of crop output per hectare cultivated
MALAWI

Farm income per adult equivalent

- 25th percentile
- 50th percentile
- 75th percentile
- 99th percentile

farm income per adult equivalent

population / square km of land
Figure 2: Total value of cash expenditures per ha cultivated
Figure 4: Net crop income per hectare cultivated

![Graph showing net crop income per hectare cultivated in Kenya. The graph plots net crop income in KSh (thousands) against population density (persons per sq km) with actual and simulated data compared.](image_url)
### Proportion of the population residing in areas beyond the thresholds - Kenya

<table>
<thead>
<tr>
<th>Population density (persons/km² of arable land)</th>
<th>% of population (excluding urban areas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0&lt;(\text{den})(\leq)200</td>
<td>36%</td>
</tr>
<tr>
<td>200&lt;(\text{den})(\leq)400</td>
<td>26%</td>
</tr>
<tr>
<td>400&lt;(\text{den})(\leq)600</td>
<td>16%</td>
</tr>
<tr>
<td>600&lt;(\text{den})(\leq)800</td>
<td>8%</td>
</tr>
<tr>
<td>800&lt;(\text{den})</td>
<td>14%</td>
</tr>
<tr>
<td>total</td>
<td>100%</td>
</tr>
</tbody>
</table>
Conclusion #3

It is almost certainly the case that agricultural growth will require bringing new land under cultivation.
Agricultural extensification

• Who is getting access to the remaining potentially arable unutilized land?

• The rise of medium-scale farms

• Reflects a rising demand for prime land by upper-class urban and rural people
Who are the medium-scale farmers?

- Majority of them used non-farm entry pathway into medium scale farming
- Urban and rural elites
- Using their savings from their non-farm jobs
- They are relatively well-educated
- Cultivate less than 50% of their land
Medium-scale farms productivity - Kenya

Figure 2a: Value of crop production per hectare planted

- Gross value
- Net value

Land -- planted (ha)

KSh/ha planted

20 60 100
Medium-scale farms costs - Kenya

Figure 5a: Total crop production costs per hectare planted
Optimism that small-scale farms can expand

- Is the smallholder-led agricultural development still feasible?
- Only a small proportion of medium-scale farmers started out with less than five hectares of land.
- At least some room for optimism that small-scale farms can expand into commercialized medium-scale stature under favorable conditions including access to land.
Conclusion #4

Migration is a potential strategy for dealing with increasing land constraints
Migration

• **Rural-rural:** Migration to more sparsely populated rural areas has the potential of relieving land pressures in densely populated rural areas
  • Investment in infrastructure (irrigation, roads, health, etc.)

• **Rural-urban:** Urban migration is occurring at too rapid a pace to prevent rising unemployment and underemployment
  • Off-farm paying employment vs poverty jobs?
  • Investment in quality human resource
Conclusion #6

Most governments’ strategies are oriented to promote agricultural growth and food security for the millions of their rural constituents who are smallholders assume unhindered access to land.
Looming employment challenge in SSA

Age pyramid:
rural SSA, 2015

62% < 25 years old
Government policy orientation

- Wage employment will be able to absorb two thirds of the people entering the labor force between 2010 and 2020.
- Access to land will largely determine whether millions of rural Africans will make a decent livelihood and be able to feed themselves.
- This will depend on how supportive the land allocation and agricultural policies are to smallholders.
- African leaders may soon perceive that political stability will depend on the profitability of family farming.