Megatrends Shaping Rural Transformation in Africa

F. Kwame Yeboah, Assistant Professor
Thomas S. Jayne, University Foundation Professor
Michigan State University

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Focus

• Definition of rural transformation
  • Role of agriculture in the transformation process
• Key megatrends shaping rural economies in Africa
• Policy options of accelerating rural transformation
Key Messages

- Rural transformation approaches must recognize and aptly respond to Africa’s changing economic landscape and emerging transformational factors shaping the continent’s development.

- Agriculture remains important for rural livelihoods and its performance will influence rural transformation trajectory.

- Accelerating rural transformation would require long-term investments in interventions that are:
  - Grounded in an understanding of local environment and integrate local knowledge
  - Holistic and multifaceted (No silver bullets!)
  - Leverage technology
  - Strengthen the voices of target beneficiaries in their design and implementation
Africa’s Changing Economic Landscape

1984

AFRICA’S WOES
Coups, Conflict And Corruption

1992

The Agony of Africa

2011

Africa Rising

The Economist
Africa’s Changing Economic Landscape

• Significant improvement in monetary and non-monetary measure of poverty in SSA

Source: World Bank (2016), World Development Indicators
Caveats

• Progress is highly unevenly across countries

• Significant challenges remain particularly in rural areas
  • Increases in absolute number of poor from 280m to 330m between 1995 and 2013
  • SSA lags behind other regions at all education levels and rising concerns about quality
  • 1 in 12 children dies before their 5\textsuperscript{th} birthday
  • Slower job growth leading to unemployment and underemployment

• Unresolved questions about the sustainability of the transformations
1. Agriculture and Rural Transformation
Rural Transformation

• A long-term and multi-dimensional process of change in the social, economic and environmental conditions of rural areas
  • Require long-term engagement to achieve lasting results
  • Demands investment across multiple sectors

• Embedded in the broader process of structural transformation involving
  • Decline in the relative share of agriculture in GDP and employment
  • Corresponding rise in modern industry and services,
  • Increase rural-urban migration ➔ Urbanization
  • Demographic transition
    • High to low rates of births and deaths (Timmer, 2009)

• Results in overall increases in productivity, off-farm employment opportunities, living standards, and poverty reduction
Rural and Agricultural Transformation Process

Agricultural productivity growth arising from technical innovation, economies of scale, shifts to higher-return crops and animal products

Productive farmers generate surplus production and earn cash income from the sale of farm output

Increased incomes stimulates demand for goods, services and jobs in off-farm sector

Gradual transition of labor from farm to non-farm activities, rural-urban migration and declines in rural population growth

Overall increases in labor productivity, incomes and living standards, and urbanization of rural lifestyles
Agricultural productivity is a key driver of Africa’s recent economic transformation.

Farming’s employment share declining most rapidly among countries enjoying highest agricultural productivity growth.

Source: Yeboah and Jayne, (2018)
Agricultural productivity growth is a key driver of Africa’s recent economic transformation.

Non-farm labor productivity growth highest among countries with high agricultural productivity growth.

Source: Yeboah and Jayne, 2018
Upshot

• Because of its extensive forward and backward linkages with the rest of the economy, inclusive agricultural productivity growth generates significant employment and income multipliers effects in the overall economy.
2. Megatrends Influencing Rural Economies
Megatrend #1. Rapid Population Growth and Youth bulge

- Population growth is fastest and youngest in Africa and India, where threats to food insecurity is greatest
  - 59% of global population growth between 2017 and 2050 will occur in Africa
  - Rural population in SSA will continue to rise past 2050
  - India will be the world’s most populous country by 2024
- Over 60% and 50% of population in Africa and India respectively are below age 25 (United Nations 2017)
Megatrend #1. Rapid Population Growth and Youth bulge

• Rapid population growth could exacerbate food security and employment challenges and reduce the fiscal space for investment in human capital
  • Gap between labor market entrants and available jobs in SSA widens by ~8 million annually

• Interventions accelerating demographic transition may be a critical component of any long-term rural transformation strategy
Megatrend #2: Rising Food Demand and Reliance on Food Imports

• Rising domestic demand for food and agricultural products
  • Food demand to expand by 55% in SSA by 2030
  • Food grain demand in India to reach 355 million tons by 2030 (World Bank, 2015)

• Rising reliance on imported foods
  • SSA food import rose from US$6 billion to US$ 45 billion between 2001 and 2014
  • Opportunity for economic growth and job creation in import-substituting local production and marketing

Source: ReNAPRI (2017)
Megatrend #2: Rising Food Demand and Reliance on Food Imports

• Challenge: How to integrate small-scale farmers and low-skilled rural youth into local and global supply chains?
  • Skills and capacity constraints
  • Physical infrastructure challenges (e.g. energy, road, cold storage)
  • Access to productive services (e.g. finance, insurance, market)

• Reliance on food imports may impede job growth in upstream stages of AFS:
  • farming
  • agro-input supply
  • services for farmers
  • crop assembling and wholesale trading
  • agro-processing
Trend # 3 Shift in Labor Force From Farming to Non-farm

Share of total FTE jobs in farming over time

<table>
<thead>
<tr>
<th>Country</th>
<th>Base Year (Period)</th>
<th>End Year (Period)</th>
<th>% of total FTE jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana</td>
<td>2006-2013</td>
<td>2013</td>
<td>44 - 34</td>
</tr>
<tr>
<td>Nigeria</td>
<td>2004-2013</td>
<td>2013</td>
<td>22 - 34</td>
</tr>
<tr>
<td>Rwanda</td>
<td>2006-2011</td>
<td>2011</td>
<td>66 - 54</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2009-2015</td>
<td>2015</td>
<td>61 - 49</td>
</tr>
<tr>
<td>Uganda</td>
<td>2006-2012</td>
<td>2012</td>
<td>57 - 49</td>
</tr>
<tr>
<td>Zambia</td>
<td>2006-2012</td>
<td>2012</td>
<td>61 - 47</td>
</tr>
</tbody>
</table>

Source: Yeboah and Jayne, 2018
# of people employed in farming still rising
Farming remains single largest employer of workforce in most countries

Source: Yeboah and Jayne, 2018
Megatrend #4: Rising Land Scarcity

Many African countries are either land constrained or approaching the full extent of their land.

<table>
<thead>
<tr>
<th></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>8.8%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

9 countries contain 90% of Africa’s unutilized arable land.

Source: Heady and Jayne, 2014
Megatrend #4: Rising Land Scarcity

• Average farm size per capita has declined by 30–40 per cent in over 40 SSA countries since 1970 (Headey and Jayne, 2014)

• India will be among the world’s most land scarce countries by 2050
  • Land-to-population ratio in India will be 4 times lower in 2050 than it was in 1960

• Rural youth are waiting longer to inherit land because of significantly longer adult life spans

• Land scarcity is encouraging rural youth out-migration and exit from agriculture (Kosec et al., 2018, Yeboah et al. forthcoming)
Africa’s agricultural growth still relies mainly on cropland expansion, not enough on productivity growth

Megatrend #5: Changes in Farm Structure/Rise of Medium Scale Farms

- Rapid shifts in farmland distribution and ownership patterns towards medium and large scale farms

- Medium and large scale farms account for an increasing share of total agricultural land and value of marketed crop output.

- Medium-scale farms are a potential source of job growth through the multiplier effects of ag productivity growth
  - Pull in large scale commodity traders
  - Rise of mechanization rental

Share of total crop value by farm size group, Tanzania

Source: Tanzania National Panel Survey
Three sub-categories of medium scale farmers: Ghana, Kenya, Zambia
Megatrend #6. Widespread Soil Degradation

• Land pressure ➔ continuous cultivation of land ➔ soil degradation

• Extent of degradation
  • 65% of arable land in SSA
  • over 180 million smallholders affected
  • US$68 million in lost revenue (Montpellier panel 2014)

• Persistent pattern of degradation could depress agricultural productivity growth and the resultant income and employment effects
Megatrend #7. Climate Change

• Africa projected to suffer greater effects from climate change
  • Variability in the quantity and timing of rainfall
  • Higher temperature regimes
  • Increased incidences of pest, weed and diseases of crops and livestock are also expected. (IPCC, 2007)

• Impact on agriculture uncertain and likely to vary spatially
  • Greater variability in agricultural production
  • Possible decline in crop productivity (Schlenker and Lobell, 2010)
  • Africa may experience economic losses up to 3.4% of GDP by 2060 if average global temperature reach 2°C (PACJA 2009).

• Potential effects will depend on how rapidly and effectively farmers adapt to conditions that threaten productivity growth.
Megatrend #8 Digital Technology

• Rapid expansion of digital technology
  • Over 650 million mobile phone subscribers in Africa,
  • 55% of mobile subscribers will adopt smartphone by 2020

• Digital technology could revolutionize agriculture and rural landscape
  • Provide information on weather and improved agronomic practices (e.g. Digital Green)
  • Connect farmers to market
  • Promote financial inclusion (E.g. Kenya’s Mpesa)
  • Facilitate access to agricultural inputs and services (e.g. Hello Tractor)

• Much work remains to bridge the rural-urban digital divide and improve digital literacy
Upshot

• Megatrends present both challenges and opportunities for RT

• Megatrends are not inevitable!
  • Policy can influence future trajectory of the trends

• Rural transformation strategies need to anticipate and proactively “bend” trends towards socially desirable outcomes
3. Policy options for accelerating rural transformation
Elements of an Effective RT Strategy

• Key areas for policy action will differ across countries depending on the level of structural transformation

• Success would require interventions to be
  • Grounded in an understanding of local environment and integrate social and cultural dimensions whenever possible
  • Holistic and multifaceted (No silver bullets!)
  • Leverage technology
  • Strengthen the voices of target beneficiaries in their design and implementation
LIVELIHOODS OPTIONS 62% < 25 years

40% Non-farm
- 10% Successful non-farm
- 30% Struggling non-farm

60% Farming
- 10% Successful farm
- 50% Struggling farm

Pulled out of agriculture
- In jobs with high barriers to entry
- Post-secondary education
- Invested in skills

Pushed out of agriculture
- Relatively unskilled / limited education
- Limited access to land / finance
- Mainly informal sector / wage workers

Pushed into agriculture
- Few productive assets
- Poor access to land, finance, knowledge
- High concentration of poverty

Pulled into agriculture
- Good access to land, finance, etc.
- Favorable market access, infrastructure
- Diversified income sources

70% Successful non-farm

30% Successful farming
Key Areas for Policy Action

1. Promote broad-based agricultural productivity growth
   • By making farming more competitive, good jobs in farming will grow and good off-farm jobs will grow even faster
   • Multiplier effects: performance of farming will influence the pace of off-farm job growth

• Strategic policies include
  • Public investments that improve on-farm productivity:
    • Agriculture R&D and extension systems
    • Infrastructure (e.g. irrigation, roads, electricity)
  • Youth-inclusive agricultural development programs
    • Facilitate access to productive assets and services (land, finance, market)
    • Mentoring by successful farmers
Key Areas for Policy Action

2. Human capital development
   • Invest in nutrition programs especially in early years to avert stunting and negative effects on learning abilities
   • Invest in people through quality education, TVET, mentoring programs to improve skills and abilities to identify and amply take advantage of emerging opportunities

3. Create conditions for evidence-base and responsive policymaking
   • Invest in actionable research and innovation hubs
   • Strengthen beneficiaries’ voice in policy dialogue as well as program design and implementation
Thank You