Africa’s Transforming Agrifood System: Implications for Youth Skills Development

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Keynote Presentation at the 5th Annual ReNAPRI Stakeholders Conference
Zanzibar, Tanzania
November 28-29, 2018
Youth Bulge: Looming Employment Challenge

Gap between labor market entrants and available formal wage jobs widen by about 8 million annually.

62% < 25 years old

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013).
Focus

• Signs of agrifood system transformation (AFS) in Africa
• Skills/capacity needs of the transforming AFS
• Measures to equip young people with required skills and capacity
Signs of a transforming AFS
1. Rising Food Demand and Changing Dietary Preferences

- Rising food demand
  - Food demand to expand by 55% and value of Africa’s AFS reach US$1 trillion by 2030 (World Bank, 2015)

- Rapid diet transformation towards processed and high value protein and horticulture (Tschirley et al. 2015)

- Growing reliance on imports
  - SSA food import rose from US$6 billion to US$45 billion between 2001 and 2014

Source: ReNAPRI, 2017
2. Rise of Commercialized Medium Scale Farms

- Rapid growth in the # of medium scale farms while # of small farms grow slowly
- Medium and large scale farms account for an increasing share of total agricultural land and value of marketed crop output.
- Major source of investments/capital in agricultural value chains

### Share of total crop value by farm size group, Tanzania

<table>
<thead>
<tr>
<th>Year</th>
<th>0-5 ha</th>
<th>5-20 ha</th>
<th>20-100 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
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<td></td>
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<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2015</td>
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</tbody>
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Source: Tanzania National Panel Survey
3. Greater Vibrancy in Agricultural Factor Market

Rising demand for herbicide and labor-saving technologies including tractors (Grabowski and Jayne, 2016; van der Westhuizen, 2018)

Growing importance of land rental and sales market as a means to acquire land especially for youth

**% of total farmland area**

- Inherited/gifted: 38.34%
- Purchased: 36.46%
- Rented: 7.00%
- Borrowed: 6.90%
- Other mode of acquisition: 11.30%

Source: NPS 2014/15

**Probability of renting in, by age of head**

Source: Ethiopia 2015-16 LSMS-ISA
4. Diversification of Labor Force from Farming into Off-farm Activities

Share of total FTE jobs in farming over time

Rapid declines in the share of labor force engaged in farming (FTE)
Rapid job growth in off-farm AFS but from low base

Share of total FTE jobs in off-farm AFS

<table>
<thead>
<tr>
<th>Country</th>
<th>Base Year (Start-End)</th>
<th>End Year (Start-End)</th>
<th>% of Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana</td>
<td>(2006-2013)</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Nigeria</td>
<td>(2004-2013)</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Rwanda</td>
<td>(2006-2014)</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>(2009-2015)</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Uganda</td>
<td>(2006-2014)</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Zambia</td>
<td>(2006-2012)</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

< 20% of total FTE jobs
Majority of the off-farm AFS jobs in commerce and distribution, much less in agro-processing

Agro-processing constitute less than 25% of total FTE jobs in off-farm agrifood system
5. Impressive Agricultural Growth Rates

Annual Inflation-adjusted agricultural growth rates, 2000-2016

World Development Indicators (2017)
Performance of agriculture is closely linked to on-going transformation

![Graph showing the relationship between average annual TFP growth in agriculture and annual % change in share of labor force engaged in farming.](image)

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

Source: Yeboah and Jayne, (2018)
Performance of agriculture is closely linked to on-going transformation

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

Source: Yeboah and Jayne, 2018
Upshot

• Inclusive agricultural growth is needed to sustain on-going transformation and generate income and employment multipliers effects in overall economy
Skills and capacity needs for a transforming AFS
Skills and Capacity Needs

• Future labor market and AFS is expected to be knowledge and technology intensive
  • Successful farmers, entrepreneurs, and wage workers in AFS will need significantly upgraded education and skills to be competitive.

• Required skills will evolve over time
  • \( \rightarrow \) Need to invest in universal/ transferable skills that empowers youth to acquire new skills
Skills and Capacity Needs

- Foundational skills: Literacy, cognitive, numeracy
- Technical/Industry-specific skills: Food technology, food safety, agronomy, Nutrition
- Business and Financial Management skills: Farm management, agronomy, accounting, marketing
- Soft skills: Leadership, self-discipline, critical thinking, responsibility
Deficit of Skills and Capacity in SSA

**Quantity**
- 20% of youth (15-24 yrs) and 30% of young adults (25-34 yrs) have no formal education
- 2 in 3 young Africans entering the labor force do not have any secondary school education (Filmer and Fox 2014)
- Shortfall in the capacity requirement to implement first 10 years of AU Agenda 2063
  - 55,000 engineers out of an estimated 4.3 million needed.
  - 80,000 agricultural scientists while needing an estimated 150,000 agriculturalists (ACBF, 2016)

**Quality**
- Less than a third of those completing primary school achieve basic standard competencies in literacy and numeracy (Bold et al., 2017)
- Skills mismatch
  - Disconnect between tertiary education and labor market needs (AfDB 2016)
- Lack of “soft” skills
  - “it is difficult to find someone who is reliable and has integrity”
Addressing Skills and Capacity Deficit
Holistic Approach to Education and Skill Development

• Early childhood health and nutrition intervention to avert negative effect on learning abilities

• Long term investments to improve access to quality of education at all educational levels
  • Update educational curriculum to reflect the evolving labor market conditions
  • Build stronger learning systems with clear learning standards, good teachers, resources and proper regulatory environment that emphasize accountability

• Strengthen linkages between skill training and industry
  • Private sector could provide inputs for curriculum reform and hands-on training (e.g. Global Apprenticeship Network)
Conclusions

• Africa’s transforming AFS offers tremendous opportunity for job creation and economic transformation

• Increased capacity and skills are needed to take advantage of emerging opportunities
  • Capacity is lacking both in quantity and quality (skills mismatch and soft skills)

• Education and skill training alone is not enough!
  • Without rapid expansion job opportunities, skills training for youth will only displace others from their jobs.

• Investments in agricultural productivity growth remains critical
  • Generate multiplier effects to accelerate the rate of job growth
“We cannot always build the future for our youth, but we can build our youth for the future.”

—Franklin D. Roosevelt
Thank you

Questions?