Agricultural Productivity Growth, Resilience, and Economic Transformation in Africa

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Motivation

1. Africa in 2020 is very different than in 1980 or even 2000.
   - Are the challenges the same?
   - How does USAID need to evolve given the 2020 landscape?

2. New trends affecting Africa and the world. How to proactively anticipate and adapt to these trends?

3. Sub-Saharan African countries differ in important respects:
   - Differing stages of economic transformation, degree of fragility.
   - More SSA countries are becoming “resource rich”, which brings unique challenges.
Conceptual Framework

• **Economic transformation** – economic development process that leads to higher national income (GDP) and economic resilience by sustainably increasing productivity (output per worker).
  
  • *Structural transformation* - shifts resources (labor, capital) from low productivity sectors (household farms and firms) to higher productivity, modern enterprises.
  
  • *Increased productivity* within various sectors – new technology, better use of technology, better management, etc.

• **Increased productivity in agriculture sector critical part of this process**, especially in lower income countries, where a large share of the labor force works there. Increases quantity of economic growth and inclusivity.
Resilience

• **Economic resilience** – capacity to manage shocks, keep income & assets from declining, and revert back to a growth path – supports transformation and higher welfare.
How agricultural-led development increases resilience

Resilience Factors

Macro Resilience Factors
- Economic Transformation
- Higher human capital
- Political stability, Voice & Trust
- Inclusionary economic policies

Micro Resilience Factors
- Income & Food Access
- Access to Basic Services
- Formal Safety Nets, Insurance
- Assets & Savings
- Adaptive Capacity

Mitigated Risks

Macro Risks
- External Economic Shocks
- Internal Shocks - Banking Crises, Recessions
- Climate Shocks
- Civil Conflict & Refugees
- Pandemic

Micro Risks
- Climate Conflict
- Economic Downturns, Price Shocks
- Health
### African Country Groups

<table>
<thead>
<tr>
<th>Fragile states</th>
<th>Resource rich countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central African Republic *</td>
<td>Angola</td>
</tr>
<tr>
<td>Chad *</td>
<td>Congo Republic</td>
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<tr>
<td>Congo, Democratic Republic *</td>
<td>Mauritania</td>
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<tr>
<td>Guinea *</td>
<td>Nigeria</td>
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<tr>
<td>Somalia</td>
<td>Zambia</td>
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<tr>
<td>Sudan and South Sudan (separated 2011) *</td>
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<tr>
<td>Zimbabwe</td>
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### Low income countries

<table>
<thead>
<tr>
<th>Benin</th>
<th>Malawi</th>
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<tbody>
<tr>
<td>Burkina Faso *</td>
<td>Mali *</td>
</tr>
<tr>
<td>Burundi</td>
<td>Mozambique *</td>
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<tr>
<td>Eritrea *</td>
<td>Niger</td>
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<tr>
<td>Ethiopia</td>
<td>Rwanda</td>
</tr>
<tr>
<td>Gambia</td>
<td>Sierra Leone *</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>Tanzania</td>
</tr>
<tr>
<td>Liberia *</td>
<td>Togo</td>
</tr>
<tr>
<td>Madagascar</td>
<td>Uganda</td>
</tr>
</tbody>
</table>

### Lower middle-income countries

<table>
<thead>
<tr>
<th>Cape Verde</th>
<th>Sao Tome &amp; Principe</th>
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<tbody>
<tr>
<td>Cameroon</td>
<td>Senegal</td>
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<tr>
<td>Comoros</td>
<td></td>
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<tr>
<td>Cote d’Ivoire</td>
<td></td>
</tr>
<tr>
<td>Djibouti</td>
<td></td>
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<tr>
<td>Eswatini (formerly Swaziland)</td>
<td></td>
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<tr>
<td>Ghana *</td>
<td></td>
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<tr>
<td>Kenya</td>
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<tr>
<td>Lesotho</td>
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</tbody>
</table>

* Recently satisfies definition of “resource rich”: +50% export earnings from natural resource extraction
Key findings
Finding #1:

Unmistakable evidence of agricultural transformation in Sub-Saharan Africa (SSA)
ANNUAL AGRICULTURAL GROWTH RATES
(constant local currency units, 2000-2019)

Sub-Saharan Africa: 3.87
East Asia: 3.64
Mid-East/N. Africa: 3.14
South Asia: 3.06
Latin America: 2.83
Europe/C. Asia: 2.58
North America: 1.94
OECD: 1.09
World: 2.73

Source: World Development Indicators, 2020
Finding #2:

Agricultural growth remains a major driver of strong economic growth in Sub-Saharan Africa
Strong correlation between agricultural and economic growth in Sub-Saharan Africa

Correlation coefficient = 0.48
Importance of agriculture in African economies

Correlation coefficient: annual agricultural vs. GDP growth rates

Share of labor force in agriculture (%)

Fragile and low income countries more dependent on agricultural performance than lower-middle income; resource rich countries least dependent on agriculture.
RELATIONSHIP BETWEEN AGRICULTURAL LABOR PRODUCTIVITY AND POVERTY REDUCTION

Pace of rural transformation and rural poverty reduction in East and Southern Africa, 1990s-2010s

Finding #3:

Agricultural growth in Sub-Saharan Africa still relies on area expansion. Rapid economic transformation will require productivity-led ag. growth.
From resource-dependent to productivity-led agricultural growth

Key policy drivers

**Productivity-led growth (TFP)**
- Research & development
- Enabling environment for innovation and technology adoption
- Market reforms
- Nonfarm employment growth

**Resource-led growth**
*land, water, other inputs*
- Price policies and incentives
- Credit policies
- Market infrastructure
- Irrigation investment
- Land policies
- Trade policies
- Exchange rates

TFP = ‘total factor productivity’ is a broad measure of resource productivity that reflects technical and efficiency improvements due to adoption of improved technologies, management practices and higher-valued commodities.
Evidence from emerging success stories
BANGLADESH
Evidence from emerging success stories

ETHIOPIA
Evidence from emerging success stories
GHANA

Ghana - agricultural growth

Northern Ghana - poverty and child stunting

- Prevalence of extreme poverty
- Prevalence of child stunting
Key drivers of agricultural productivity growth

• Bangladesh:
  • Innovations in rice, aquaculture, vegetables.
  • Market liberalization and enabling environment for private sector investment.
  • Low-cost irrigation tubewells and pumpsets.
  • Gender-inclusive extension and adult education (especially through NGO’s).

• Ethiopia:
  • Innovations in cereals, grain legumes, roots & tubers.
  • Market liberalization.
  • Rural roads.
  • Social safety net.
  • Macro-economic stability.

• Ghana:
  • Macro-economic policy reform.
  • Market liberalization and enabling environment for private sector investment.
  • Rural infrastructure.
  • Innovations in roots & tubers, cereals, grain legumes.
Finding # 4:

Important differences in African countries’ ability to transform their economies and to recover from shocks like COVID-19 trajectory
Lower-middle income countries generally better positioned for sustained economic development

Indictors of future economic transformation

- Infrastructure dev. Index
- Exp. Ag R&D per worker (PPP$)
- Enabling business of agriculture index
- % using internet
- Domestic credit to private sector (% of GDP)
- Government effectiveness
Lower-middle income countries generally delivering better health care and public services to population.
Rapidly increasing financial inclusion, especially for men

<table>
<thead>
<tr>
<th>Region</th>
<th>2011</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low income</td>
<td>6.7</td>
<td>23.6</td>
</tr>
<tr>
<td>Lower-middle income</td>
<td>25.8</td>
<td>53.2</td>
</tr>
<tr>
<td>Resource rich</td>
<td>26.7</td>
<td>27.9</td>
</tr>
</tbody>
</table>

% owning financial account - women

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<thead>
<tr>
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<tr>
<td>Fragile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low income</td>
<td>9.8</td>
<td>29.4</td>
</tr>
<tr>
<td>Lower-middle income</td>
<td>16.5</td>
<td>44.6</td>
</tr>
<tr>
<td>Resource rich</td>
<td>31.4</td>
<td>61.9</td>
</tr>
</tbody>
</table>

% owning financial account - men

Note: Percentage of adult population who report holding an account (by themselves or together with someone else) at a bank or another type of financial institution or report personally using mobile money services in the past 12 months.
Lower-middle income countries not always better positioned to adapt/cope with shocks

<table>
<thead>
<tr>
<th>% rural pop on degrading land</th>
<th>Trade openness</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.4</td>
<td>49.4</td>
</tr>
<tr>
<td>27.3</td>
<td>51.2</td>
</tr>
<tr>
<td>32.4</td>
<td>52.2</td>
</tr>
<tr>
<td>17.4</td>
<td>51.7</td>
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Legend:
- Fragile
- Low income
- Lower-middle income
- Resource Rich
The Way Forward for Africa

Goals:
• Short-term: Arrest economic decline associated with COVID; restore macroeconomic stability
  • Start process of reducing debt service
• Medium-Term: Sustainable growth
  • Grow economies, develop resiliently

How:
• Support investments in agricultural productivity growth
  • Reallocate public expenditures toward high-payoff investments such as ag R&D&E
  • Market liberalization and enabling environment for private sector investment
  • Land management practices that promote resilience/ag productivity/climate-smart ag.
  • Land tenure
• Expand trade links
• Improve infrastructure – roads, energy, water, ICT
  • Access and quality (better management)
  • Use green technologies, leapfrogging
• Increase efficiency of public spending, especially for social services
  • Improve quality, access in rural areas, refocus on learning
• Financial Deepening – solvency where needed
• Domestic resource mobilization increase taxes/GDP
Options for LIC

**Goal:** Accelerate productivity-led growth in agriculture *by increasing on-farm productivity and developing the rural economy*

**How:**
- Develop & strengthen ag. R & D system through rapid adaptation of existing technologies.
- Revitalize public extension and focus on scale-appropriate technology for SHF.
- Improve policy environment.
- Expand rural road network.
- Streamline land tenure processes, facilitate rental markets.
- Invest in water management.
- Encourage coops & out-grower schemes.
- Increase voice of rural areas in politics.
Options for LMIC

**Goal:** Accelerate productivity-led growth in agriculture through greater specialization and commercialization, develop livestock sector and develop downstream value chains

**How:**
- Focus R & D on wider variety of commodities, integrate universities, prioritize market development
- Expand extension to harvesting, drying, and market development
- Build greater connections between farmers & GVC, agro-processing, FDI
- Maintain and expand transport connecting rural areas to markets
- Develop quality assurance systems
- Pursue innovative credit access programs
- Encourage affordable mechanization
Resilience and Fragility

• Growing incidence of climate & conflict shocks (and now a pandemic) results in fragility, which threatens economic progress.

• Fragile States (CAR, Somalia, Zimbabwe, Chad, DRC, South Sudan & Sudan).
  • But others are arguably fragile, but resource-richness may mask fragility (e.g., Nigeria).

• Fragility emanates largely from:
  • Inequality, voice, polity & governance issues
  • Lack of economic progress
  • Exposure to conflict, climate, health, economic, social or other shocks knocks countries off their growth paths.
  • Lack of resilience inhibits mitigation.

• Resilient countries: Weather storm, quickly revert to their growth paths.

• Non-resilient countries: Thrown off their growth path longer & may require humanitarian intervention, resettlement & rehabilitation assistance, peacebuilding & redevelopment support to get back on track.
Options for Fragile States

**Goal:** *Restore political stability & begin to rebuild rural economy*

**How:**

- Restore security and political stability; invest in peacebuilding, increase voice of rural areas
- Use humanitarian programs & safety nets to reduce household deprivation.
- Support rehabilitation of farming systems, including resettlement
- Rehabilitate rural and community infrastructure, including health and education.
- Strengthen state capacity for policy formulation & expenditure management, including in Agricultural Ministry.
Options for Resource Rich States

**Goal**: *Fight Dutch disease through targeted ag. support, build inclusivity*

**How**:
- Manage Dutch disease, reduce economic volatility
- Expand ag. R & D to wider variety of commodities, mission-oriented universities
- Reform extension to be demand-driven
- Improve enabling environment for agriculture and agro-businesses
- Attract FDI
- Maintain/expand transport connecting rural areas to markets
- Develop quality assurance systems
- Innovative credit access programs - with the private sector
How USAID/RFS can support SSA’s transformation

• USAID goal – country self-reliance (capacity to plan, implement, and finance its own development)

• Economic, political & social development are key
  • Transformation
  • Resilience

• SSA LICs and LMICs need transformation in the agricultural sector as well as development of modern nonfarm private sector

• USAID has comparative advantage in development space in supporting robust private sector agricultural and agro-food system development
  • Private and University led R & D system with relationships throughout SSA, CGIAR, IFIs & UN system
  • Agribusiness / private sector-led approaches / enabling environment
  • Skill set (staff) not found in other bilateral aid agencies (agricultural and PSD)
  • USAID thought leader, innovator

• Can’t use one-size fits all approach, esp. in RR, FS.
End
Progress in rural access to basic public services

% rural population with access to safe drinking water

- Fragile: 28.7% (2000) vs. 34.7% (2017)
- Low income: 22.6% (2000) vs. 42.4% (2017)
- Lower-middle income: 45.2% (2000) vs. 55.3% (2017)
- Resource rich: 32.7% (2000) vs. 51% (2017)

% rural population with access to electricity

- Fragile: 8.6% (2000/02) vs. 24.1% (2016/18)
- Low income: 5.5% (2000/02) vs. 19.9% (2016/18)
- Lower-middle income: 15.1% (2000/02) vs. 50.1% (2016/18)
- Resource rich: 18.8% (2000/02) vs. 27% (2016/18)