INVESTMENTS PRIORITIES FOR IMPROVING FOOD SECURITY IN AFRICA.

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Presentation at a consultative workshop on Strategies to inform investments for food security in Sub-Saharan Africa.

OUTLINE

- Food production and security situation in Africa
- Factors driving agricultural production and food security in Africa.
  - Supply side forces
  - Demand side forces
- Priority investments for improving Food Security
24 countries in Africa need external assistance for food:
Reasons -
- Crop failure
- Natural disasters
- Distribution disruption
- Decrease in area planted/yield

West & East Africa – Reduction in Cereal Crop output (2011 -2012)

Southern Africa – Mixed – Above average for half of the countries (2011-2012)
Proportion of Food Insecure in Africa

- Rural Landless poor: 30%
- Urban Poor: 20%
- Farming households: 50%

Mostly smallholder farmers with land holding less than 2ha.

Source: Heidhues et al., 2004
Factors Driving Agricultural production and Food Security in Africa.

1. Supply Side Forces

- Land crisis – Limiting expansion of cultivated area especially for smallholder farmers.
- Resurgence of agricultural input and market subsidies to promote food production
- Stagnantly low productivity
- Other factors - Climate Change
2. Demand Side Forces

- Rising and volatile food prices
- Increased demand – Population growth, urbanization and rising incomes.
- Rising food deficits in some region – general movement toward import parity prices
- Shift in consumption preferences - Rising importance of wheat in urban consumption
Supply Side Drivers

1. Land crisis
   - Evidence that smallholders (who constitute 50% of the food insecure) face land constraints - amidst unutilized land.
Most smallholder farms lack the land and other resources to produce a surplus

Source: Jayne et al., 2012
## Arable land-to-person ratio (10 year average) in selected countries (ha/person)

<table>
<thead>
<tr>
<th></th>
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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>

Source: FAO STAT (2010)
Land utilization follows infrastructure development - roads

Figure 1. Population Density and Distribution in Zambia, 2007

Settlements concentrated on areas with infrastructure

Hence the paradox of land constraints in midst of plenty

Considerable land is covered by water, national parks

2. Resurgence of agricultural input and food marketing subsidies to promote food production

- US$2.5 billion each year on fertilizer subsidies
- Seven countries driving this trend (Nigeria, Ethiopia, Malawi, Zambia, Tanzania, Kenya, Ghana)
Public spending on agriculture, 2010 - Zambia

FRA + FISP =
• 85% of total ag spending
• 99% of total ag poverty reduction programme spending
## FISP fertiliser received by farm size category, Zambia - 2010/11

<table>
<thead>
<tr>
<th>Total area cultivated</th>
<th>% of small-holder HHs</th>
<th>% receiving FISP fertiliser</th>
<th>Mean kg of FISP fertiliser received</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(A)</td>
<td>(B)</td>
<td>Recipient HHs</td>
</tr>
<tr>
<td>0-0.99 ha</td>
<td>39.6%</td>
<td>14.3%</td>
<td>168</td>
</tr>
<tr>
<td>1-1.99 ha</td>
<td>33.1%</td>
<td>30.6%</td>
<td>227</td>
</tr>
<tr>
<td>2-4.99 ha</td>
<td>23.5%</td>
<td>45.1%</td>
<td>310</td>
</tr>
<tr>
<td>5-9.99 ha</td>
<td>3.3%</td>
<td>58.5%</td>
<td>529</td>
</tr>
<tr>
<td>10-19.99 ha</td>
<td>0.5%</td>
<td>52.6%</td>
<td>657</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>28.6%</td>
<td>270</td>
</tr>
</tbody>
</table>

Source: CSO/MACO 2010/11 Crop Forecast Survey
# Extreme concentration of marketed maize output – Malawi, 2008/09

<table>
<thead>
<tr>
<th>Top 50% of maize sales</th>
<th>% of total sample</th>
<th>Farm size (ha)</th>
<th>Asset wealth (‘000 kw)</th>
<th>Maize sales (kgs)</th>
<th>Non-farm income (‘000 kw)</th>
<th>female headed (%)</th>
<th>Subsidized fert received (kgs/hh)</th>
<th>commercial fert bought (kgs/hh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.6</td>
<td>2.0</td>
<td>208</td>
<td>2,510</td>
<td>101</td>
<td>13</td>
<td>166</td>
<td>251</td>
</tr>
<tr>
<td>Rest of maize sellers</td>
<td>19.6</td>
<td>1.3</td>
<td>94</td>
<td>204</td>
<td>31</td>
<td>25</td>
<td>85</td>
<td>48</td>
</tr>
<tr>
<td>Farm hhs not selling maize</td>
<td>78.8</td>
<td>1.2</td>
<td>14</td>
<td>0</td>
<td>12</td>
<td>28</td>
<td>60</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: Agricultural Inputs Support Survey (n=1904 farm households), sample frame from National Statistical Office, Government of Malawi
Effect on food security???

- Input subsidy programs often politically motivated
- The private sector increasingly being crowded out
- Majority of the poor small farmers not benefiting.

Little impact on reducing rural poverty and food security

- Drain on government spending - ↓ $$ on other known drivers of ag growth, poverty reduction.
Supply Side Drivers

3. Low productivity

- An overall decline in investments in crop improvement technology, crop yields.
- Continued soil degradation → reduction in the productivity of the farms.
- Limited adoption of soil fertility replenishment strategies.
- Limited land → reduced period of fallow.
Africa Maize Yields in comparison with North and South America (tones per hectare)

Source: FAOstat
Basal fertilizer productivity - Zambia

<table>
<thead>
<tr>
<th>pH</th>
<th>Kg Maize per Kg Basal</th>
<th>% of Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1-4.3</td>
<td>2.14</td>
<td>51%</td>
</tr>
<tr>
<td>4.4-5.4</td>
<td>3.74</td>
<td>47%</td>
</tr>
<tr>
<td>5.5-7.1</td>
<td>7.55</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Burke et al, 2012.
PRORITY INVESTMENTS FOR IMPROVING FOOD SECURITY IN AFRICA.

➤ Improve smallholder landholding

➤ Improve Crop productivity

➤ Promote Smallholder commercialization

➤ Promote private sector participation
PRIORITY AREA No. 1: INCREASE LAND ACCESS FOR POOR SMALLHOLDER FARMERS

Programs that address the increasingly severe land access problems facing smallholder agriculture

- Programs to develop improved farm technologies appropriate for 1 hectare farms
- Programs that support small farm entry into higher-value crops with high growth opportunities
- Open up unutilized land for small farm-based expansion
  - Improve infrastructure
PRIORITY AREA No. 2: IMPROVING CROP PRODUCTIVITY

- Public investment in core areas that are required for sustainable agricultural growth
  - Research & development
    - Seed and soil improvement technologies
    - Regionally targeted lime subsidy
    - Encourage use of appropriate fertilizers
  - Extension
  - Information
  - Infrastructure - especially irrigation
PRIORITy AREA No. 3:
SMALL HOLDER COMMERCIALISATION

- Agricultural growth – for food security requires that smallholders be the engine
- Redirect public spending towards public goods that can be appropriated by all smallholders, not expropriated by an elite minority
- Promote smallholder access to grain markets
- Also.....
  - Promote off-farm activities to address the landless
    - Reduce rural urban migration
PRIORITy AREA No. 4: Promote Private sector involvement in staple food markets.

- Governments should move from discretionary to more systematic and rules-based forms of interventions
  - Unpredictable government involvement in grain marketing crowding out private sector participation
- Prioritize public sector approaches - enhance private sector’s potential to promote broad-based wealth creation
- Number of private sector buying grain growing over time in all eastern and southern Africa.
THANK YOU