Emerging Issues in the Agricultural Sector
Implications to Successful Implementation of Feed the Future

Feed the Future Partner’s Meeting
Dar es Salaam
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Presenting Outline

- Introduction
- Rising food imports
- Demographic transition
- Rising incomes and emerging middle class
- Rapid urbanization
- Technology and innovations
- Opportunities for intra-regional trade
- Emerging oil and gas sector
- Asking critical questions
  - Is Tanzania/Africa ready for FDI in agriculture?
  - Is governance/accountability getting better for PPP?
Emerging Socioeconomic Issues
and implications to Competitiveness of Tanzania’s agriculture

Increasing population

- Africa = 1 billion people in 2012 and projected to double in 40 years
- Tanzania = 42 million in 2012 and projected to reach 70 mil by 2025
- Population growth versus agricultural sector growth. E.g. Tanzania: Overall GDP growth = 2.9 versus ag GDP growth of 4.2% (net=1.3%)
- Increased food demand
- Land fragmentation
- Agriculture intensification in land scarce areas
- Rising land price and conflict – e.g. high growth sectors are land intensive – ag, tourism, mining, etc
Emerging Socioeconomic Issues
and implications to Competitiveness of Tanzania’s agriculture

Changing Demographics

- Falling Median age: Africa = 20, Asia = 30, Europe = 40 and Tanzania = 18
- Falling fertility rate – in medium term the median age will rise and hence improve the dependency ratio leading to “demographic dividend”
- However, currently countries are facing youth unemployment and unfavorable ag labor force
- Increasing female headed households – In Tanzania fhhh was 18% in 1991 and increased to 25% in 2007 – land rights, crop and technology choice
Emerging Socioeconomic Issues
and implications to Competitiveness of Tanzania’s agriculture

Rapid urbanization

- 50% of Africa’s population will be living in urban areas by 2025 (Tanzania’s projections vary – 2025/30)
- Urbanization means the majority of population will be getting their food from the market (as opposed to their farms)
- Urbanization calls for leap forward in agricultural productivity e.g. one third of population to feed two-thirds of population
- Need to ensure markets and food systems work efficiently – better market based policies
- Need for economies of scale in production and value chain – implications for land tenure and greater engagement of private sector in production, storage, processing, distribution and retailing
- Private sector is gradually articulating
- Urbanization combined with the youth factor will have implications in the governance strategy
Emerging Socioeconomic Issues and implications to Competitiveness of Tanzania’s agriculture

Increasing Incomes and Emerging middle class

- 12 African countries had annual GDP growth rates of 6% and above for at least 6 years
- 60 mil households (300 mil people) in Africa have annual incomes greater than $3,000 (projected to increase to 100 mil households by 2015)
- Increased demand as reflected in rising food prices and food import bill
  - In 2010 Africa spent $52 bil in food imports
  - Major imports: wheat, rice, sugar, edible oil, dairy, meat (beef & poultry), fruits and vegetables
- Urbanization and increasing incomes are contributing to changing eating habits
- Private sector is gradually articulating the changing demand e.g. emerging supermarkets
Emerging Socioeconomic Issues
and implications to Competitiveness of Tanzania’s agriculture

➢ Technology
  ❑ Reducing communication and transaction costs
  ❑ Market information and mobile money transfer

➢ Emerging Oil and Gas sectors (Ghana, Mozambique, Uganda, Tanzania etc)
  ❑ Implications to agriculture competitiveness

➢ Regional integration – EAC, COMESA, SADC etc
  ➢ Share of intra-regional trade: Africa = 10%, EAC=12%, Europe=40% and Asia=60%
Rising Global Food Prices

* The real price index is the nominal price index deflated by the World Bank Manufactures Unit Value Index (MUV)
## Recent Trends in Price of Staples

Tanzania: Average Wholesale Price of Staples Tsh/100kg

<table>
<thead>
<tr>
<th>Staple</th>
<th>Oct 2010</th>
<th>Oct 2011</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>30,108</td>
<td>42,453</td>
<td>41</td>
</tr>
<tr>
<td>Rice</td>
<td>88,269</td>
<td>143,233</td>
<td>62</td>
</tr>
<tr>
<td>Beans</td>
<td>104,508</td>
<td>124,831</td>
<td>19</td>
</tr>
</tbody>
</table>
Capitalizing on High Food Prices:
Wholesale Price of Staples – First week of March 2012 (US $/Ton)

<table>
<thead>
<tr>
<th>Market</th>
<th>Rice</th>
<th>Maize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bujumbura</td>
<td>1456</td>
<td>348</td>
</tr>
<tr>
<td>Dar es salaam</td>
<td>1272</td>
<td>311</td>
</tr>
<tr>
<td>Kampala</td>
<td>1316</td>
<td>265</td>
</tr>
<tr>
<td>Kigali</td>
<td>1173</td>
<td>390</td>
</tr>
<tr>
<td>Nairobi</td>
<td></td>
<td>356</td>
</tr>
</tbody>
</table>
## Tanzania: Agricultural Trade Balance

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ag Export</strong></td>
<td>267.1</td>
<td>319.7</td>
<td>507.3</td>
<td>479.6</td>
<td>559.0</td>
</tr>
<tr>
<td><strong>Food Import</strong></td>
<td>273.9</td>
<td>346.6</td>
<td>333.5</td>
<td>377.3</td>
<td>507.3</td>
</tr>
<tr>
<td><strong>Fertilizer Import</strong></td>
<td>59.2</td>
<td>65.0</td>
<td>188.5</td>
<td>104.6</td>
<td>126.4</td>
</tr>
</tbody>
</table>
Factors Contributing to the Surge in Food Price

- **Demand Factors**
  - Population increase including rapid urbanization (42 mil and projected to reach 70 mil by 2025)
  - Increase in per capita income
  - Increased demand for biofuel
  - Dollar devaluation and Tsh exchange rate fluctuation
  - Speculation in future markets

- **Supply Factors**
  - Escalating crude oil prices
  - Rising production cost – fertilizer price
  - Adverse weather condition – climate change
  - Slow growth in agricultural production
Profiles of Youth Farmers in Tanzania (under 40yrs)

Under 40 years farmers are more likely than older farmers to:

- Grow staples and annual crops (rice, maize, horticulture, etc) than traditional permanent and export crops (coffee, cashew, tea, etc)
- Engage in irrigated agriculture
- Rent land (or being immigrant farmer)
- Produce for the market
- Engage in post harvest activities
Feed the Future Considerations in Youth Engagement

- Value chains with greater youth participation – rice and horticulture
- Value chain activities
- Internship program
- Leadership capacity building
- Graduate training – targeting under 40 years
- Nutrition – targeting early childhood nutrition for a healthy population
- Enabling environment for private sector – create employment opportunities
Lessons From Early Successes in the Rice Value Chain

- Rice is one of the popular value chain by youth in Tanzania.
- Rice production increased by 80% from 530,000 to 910,000 tons (milled) from 1998-2011 with a concurrent decrease in imports.
- Yield are 1 ton/ha (milled rice equivalent). The potential is 3 tons/ha.
- Household budget survey increase in the budget share of rice and a concurrent decrease in the share of maize.
- Tanzania mainland annual imports average 8% of its needs (80,000 tons), whereas Zanzibar imports an annual average 85% of its needs (60,000 tons).
- Rice is imported from Vietnam, Thailand, India, Pakistan, China and Japan.
- Tanzania is the largest rice producer in the East Africa region.
- Export of 100,000 tons of rice could generate the same level of foreign exchange as coffee export today.
- Consistent public investment in new and maintenance of irrigation infrastructure is necessary.
Strategic Value Chain Investment Prioritization

Poverty Reduction
- Job creation
- Special groups - youth
- Geographic scope
- Number of firms
- Social impact
- In line with GoT strategies
- Environmental friendly

Growth Potential
- GDP contribution
- Trade – comparative and competitive advantage
- Investment – FDI/local
- Backward and forward linkages with other sectors
- Regional /global integration
- Return to investment

Food Security/Nutrition
- Food budget share
- Calories/ nutritional content
- Number of households
- Complementarity with other value chains - blending
Prioritizing Regional Investment

- Invest in strategic trade/transport corridors and consumer markets
- Need to align agricultural investment with existing infrastructure – e.g. SAGCOT aligned with roads, railway, power line, telecommunication, ICT, etc
- Consider geographic comparative advantage based on:
  - Agro-ecological conditions – climate, soils
  - Opportunity cost for land and labor
  - Resources – land, water
- Ensure agricultural investments are in harmony with other sectors for sustainability e.g. upstream vs downstream river basin
Transformative Approaches
To unleash sector growth and transformation

- Promote approaches that are catalytic, sustainable, with deeper impact, innovative, and with potential to leverage the greatest change, etc.

- Example:
  - Enhance agricultural sector competitiveness – reducing cost of doing business (for input, credit and product markets)
  - Unleash private sector investment – promote enabling environment, PPP such as SAGCOT
  - Advocate interventions that would leap forward productivity – irrigation, research
  - Promote efficiency in value chains – contract farming, mobile technology, GPS in land titling, targeted mechanization, etc
Diversifying Agricultural Exports Through Promotion of Staples

- Tanzania has relied on traditional exports such as coffee, tea, etc that are vulnerable to changes in global demand and supply.
- Staples offer opportunity to diversify products and markets concurrently – 50,000 ha with yields of 3-4 tons/ha= $100 -150 mil exp.
- There is potential for intra-regional trade for staples as Africa has become a major food importer $14 billion in 2007 (Rice=$3 billion).
- Price of some staples such as rice is within a price range of some traditional exports e.g sisal ($1,300/ton) and cashew ($900-1,100/ton).
- Staples have a shorter incubation period (3 months) compared with traditional exports such as coffee.
- More households participate in staples value chains than traditional exports.
- Irrigated agriculture such as paddy/rice is attractive to youth.
- However, lack of processing and postharvest operations are binding constraints.
Key Issues to a Successful Rice Value Chain

- Public investment in irrigation infrastructure under NIDF and DIDF with a complementary investment in rural roads
- Improved productivity from 1 to 3 tons/ha (milled rice equivalent)
- Land fragmentation addressed through land leasing and hence plot consolidation to achieve economies of scale (30-40% of farmers in irrigation scheme lease land to others)
- Strategic mechanization is necessary
- Large concentration of farmers in schemes attractive to private sector investment in milling and warehousing agro-input and tractor dealership
- Irrigation schemes are attractive to youth – average age of farmers is lower than the mainstream population
- Sustainability – 5% of harvest contributed to maintain the infrastructure, agency dedicated to irrigation, watershed management
Returns to Investment in Irrigated Rice

- The cost of developing irrigation infrastructure for rice is about $3,500 - $4,000 per ha
- Under average crop husbandry yield of 3-4 tons/ha of milled rice equivalent could be achieved
- With the prevailing wholesale price of over $1,000/ton (even as low as $500/ton) returns to investment would be very high
- A recent cost benefit analysis done in Tanzania show IRR ranging from 14-44%
- A recent study by USAID shows that Tanzania informally export slightly over 100,000 tons
Tanzania Has Made Great Strides in Increasing Domestic Rice Production Resulting in a Concurrent Decline in Imports

Source: FAO
Conclusion

- Youth engagement is critical to the success of agricultural and poverty reduction strategies.
- Countries could capitalize on the demographic dividend by engaging youth.
- Strategic choice of value chains and interventions is important to enhance youth engagement.
- Post harvest operations in agriculture value chains offer opportunities for youth employment.
- Youth force could be an opportunity and threat to country economies depending on how countries would manage this demographic transition.