

Pathways to Productivity

Center for Strategic and International Studies (CSIS)
Global Food Security Project & Africa Program



Pathways to Productivity:

Main Observations and Recommendations

Investment in Agricultural Delivery Systems is Essential

- Basic existing technologies not adopted by a majority of smallholder farmers
- Extension systems are weak and could hinder any potential impact of GM crops
- Seed industries in each of the countries do not meet quantity and quality demands

GMO Debate

- Unique debate in the local context of each target country, which has been influenced by governments, philanthropic groups, and NGO efforts
- GM crops are important to solve specific problems
- Bureaucracy matters! Political will and the domestic political structure hugely impact GM regulatory structures research, development, adoption, and commercialization

Regulatory Capacity

- Regulatory structures take a long time to develop (~10+ years), so countries need to plan a long lead time if they want to have the capability to use GMOs

Pathways to Productivity:

Main Observations and Recommendations

Scientific Capacity

- African scientists are deeply engaged in the development of GM crops in their respective countries and have devoted significant resources to developing crops to tackle food security challenges.
- Scientists should communicate with politicians and the public to help address public skepticism of GMOs

Smallholder Farmers

- GMOs are a largely abstract concept to smallholders as they are not publicly available
- Lacking strong demand signal for GMOs and other priorities take precedence
- Farmers need good products and info in order to use GM crops

Regional and Trade Dynamics

- National policies will likely shape regional regulation of GMOs
- Commercialization of GMOs by one country will likely accelerate adoption in the region
- Real fear that commercialization will have negative trade impacts, but there is little evidence of this. Most trade of potential GM crops is intra-regional, not international

Pathways to Productivity:

Forecast for Adoption

The dynamics in each country are distinct, but there are a number of common themes:

- Consumer and farmer demand for GMOs will ultimately be determined by having access to locally relevant crops
- Adoption will require a long, hard, incremental effort with sustained political will
- Commercialization of GMOs by one country will likely spread through the region



Pathways to Productivity: Forecast for Adoption

Kenya

- Leads the region in developing robust regulatory system and building scientific capacity
- Lacks consistent champions within government

Tanzania

- Has a strong, but small, scientific community
- Uphill battle in adopting GMOs, with greater public antipathy toward GMOs and the private sector

Uganda

- Has a steady incremental approach in developing and adopting GMOs
- Uniformly positive message about GMOs from the government, which has lower political barriers than its neighbors
- Opposition is increasing as it nears the passage of biosafety legislation



Pathways to Productivity:

Additional Resources

“Pathways to Productivity” Blog: <http://food.csis.org>

Related publications:

- *Trade and Tribulations: An Evaluation of Trade Barriers to the Adoption of Genetically Modified Crops in the East African Community* by John Komen and David Wafula (CSIS, May 2013)
- *Biosafety of GM Crops in Kenya, Uganda, and Tanzania: An Evolving Landscape of Regulatory Progress and Retreat* by Judy Chambers (forthcoming, CSIS, Nov/Dec 2013)

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