Seed Innovation to Deliver Farmer Prosperity: Select Experts Weigh In

Rob Bertram, David Wainaina, Aggie Asiimwe Konde, and Tony Gathungu
David Wainaina, Program Manager, Context Global Development has 18 years of experience working across many countries in Sub-Saharan African. He is passionate about improving the livelihood of smallholder farmers across SSA by managing the processes that help them access innovative products or technologies. His most recent 6 years’ experience includes managing business and commercial operations in Africa (Tropical SSA-wide and later specifically the Eastern Africa). These operations also included seed variety development operations in R&D sites in the targeted geographies. Other areas of expertise include strong multi-level stakeholder engagement and networking skills gained across the diverse and multicultural environment in Sub-Saharan Africa. He also had remarkable success in the pharmaceutical and public health sectors where he contributed to the management and goal achievement of several high-level projects in multiple countries. The projects involved many stakeholders such as the private sector, Govt and multiple donors and implementing partners. He holds a Master’s degree in Business Management (MBA) and a Bachelor’s degree in Commerce (BCom) both awarded by the University of Pune, India. David speaks French at a professional level.
Aggie Asiimwe Konde

Under her leadership, a multi-disciplinary team at Msingi East Africa scoped, designed and implemented multiple interventions across two growth industries (Aquaculture, Textiles & Apparel), creating over 800 jobs and crowding in others / convening further interventions from multiple private and public sector actors. She is passionate around improvement of fish genetics to improve incomes of SMEs in the sector. Her passion for need to invest and grow local SMES while working on the underlying enabling policy environment speaks to a lot of what AGRA does. Besides her corporate commitments, she is a girl-child mentor and a social enterprise enthusiast that is working tirelessly to shine a light on the women of Africa as the catalytic link to sustained economic transformation. Her board involvement with the African Network for the Care of Children Affected by HIV/AIDS (ANECCA) and Doctors Choice among others have served to catalyze innovations to improve access and share emerging best practices in Africa. Aggie, a Ugandan national, holds an MBA from the University of Liverpool and an undergraduate degree in Social Sciences from Makerere University, Uganda. She is also trained in Market Systems Development. She recently completed a select pioneering class of the Global CEO Program (IESA -University of Navarra). She describes herself as a pragmatic and results oriented leader with over 15 years’ experience in senior leadership roles across multiple private and public sector industries (Tobacco, Beverages & Multimedia) and most recently successfully transitioned to the economic development space (Aquaculture, Textile & Apparel) accomplishing remarkable growth and impact across five sectors.
Tony Gathungu

Tony is the Global Head of Seeds2B for The Syngenta Foundation for Sustainable Agriculture (SFSA) based in Nairobi, Kenya. Seeds2B is SFSA’s seeds stream that helps farmers access quality, affordable seeds of improved varieties for the crops they need. Tony leads the strategy and long-term planning for Seeds2B in Africa and Asia, including exploring new institutional arrangements for scaling and developing new partnerships.

He is also the Chief of Party for key seeds delivery initiatives being implemented by SFSA including the USAID-funded Partnerships for Seed Technology Transfer in Africa (PASTTA) program, the BMGF-funded Accelerated Varietal Improvement and Seed Delivery of Legumes and Cereals in Africa (AVISA) program and the OneCGIAR Seed Equal initiative.
Is Seed Marketing Important?

Perspectives on How to Address Capacity Gaps
Agenda

• What is seed marketing and why is the function so important?
• What are the current capability gaps?
• Where do seed companies fall short and what can they do better?

David Wainaina
Program Manager – CGD
(Formerly East West Seed International – Africa)

(Next 9 slides 15 Mins)
What is Marketing?

Marketing is the strategy you use for getting your ideal target prospect to know you, like you and trust you enough to become a customer.

Advertising
+ Promotion
+ Publicity
+ Public relations
+ Sales

= Marketing
Why Is It So Important?

- Varietal adoption and turnover
- ROI on investments
- National yields increase = food security

- Improved nutrition
- Promote SDG2
- Increased yield = Individual prosperity
Capabilities for Demand Creation

Who are those specific farmers and what are their pain points?

How do you deploy field staff and engage channel partners to create loyalty?

How do the features give them benefits?

How do you get the farmers’ share of mind and heart?
Perspectives from Africa Seed Companies

- 23 Respondents
- 11 Countries

Company Size

- Small
  - East Africa: 27%
  - Southern Africa: 33%
  - West Africa: 40%
- Medium
  - East Africa: 71%
  - Southern Africa: 14%
  - West Africa: 14%

*Based on annual seed volume sales

*Large companies were excluded from the analysis by size due to small sample size and missing responses. Small and medium size companies made up 22 or 23 responses.
Current Gaps – Our Findings

NOTE: CGD Seed Survey in 2021; Seed companies rated all marketing capabilities as important, but rated their organizational capacity as neutral to low.
Current Gaps – Our Findings

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What Needs to Be Addressed?

• Investment in Customer Insight
• Robustness of Promotional Strategy
• Investment in More On-Farm Product testing
• Robustness of Commercial Execution Strategies
# MNC Sales & Marketing Benchmarks

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<tr>
<th>Company</th>
<th>Ratio of Sales &amp; Marketing spend to R&amp;D spend</th>
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<tr>
<td>Corteva</td>
<td>2.5</td>
</tr>
<tr>
<td>Syngenta</td>
<td>2.3</td>
</tr>
<tr>
<td>SeedCo</td>
<td>2.1</td>
</tr>
<tr>
<td>KWS</td>
<td>1.5</td>
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<tr>
<td>Vilmorin&amp;Cie</td>
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**Assumption:**
General Administration expenses assumed at 5% of total SG&A if not available.

Looking Ahead – SMIA Innovation Areas

**Varietal Information**
- to support seed purchasing decisions by farmers

**Social Marketing**
- campaigns to influence uptake of new and improved varieties

**Point-of-Sale (POS)**
- techniques and tools to drive sales in agri-retail channels

**Digital Marketing**
- approaches by seedcos to build brand and turnover
Thank You! Stay Tuned for More Findings

Context Global Development
www.cgd.global
ROLE OF SEED IN AGRICULTURAL TRANSFORMATION

PRESENTED BY
VICE PRESIDENT PID AGRA
AGGIE ASIIMWE KONDE
ROAD TO 2030

Inclusive Agricultural Transformation

Empower and build resilience of smallholder farmers

Support inclusive markets to improve functional ag systems

Build state capability to sustain agricultural transformation

Zero Hunger

Improved Nutrition

End to Poverty

Climate Adaptation

25 Million SHF

15 Countries

Increased Adoption & practises - PPP
KEY ROLE OF SEED

- Green Revolution in Latin America, US, and Asia was triggered by improved seed varieties.
- Countries that have invested in robust and efficient seed systems are self-sufficient in food.
- The Russia–Ukraine war has exposed the fragility of countries' food systems and this has resuscitated the need to build functional seed systems.
- Seed has demonstrated its ability to respond to Climate change e.g. having climate-smart and resilient varieties.
- Deployment and utilization of nutrient-dense varieties e.g. pro-Vitamin A maize, iron-rich beans, Vitamin A cassava, rice, and potatoes have the ability to solve malnutrition.
- Inclusion, economic growth and the role of forgotten crops – Millet and Sorghum.
STATE OF PLAY: SEED INDUSTRY IN THE LAST DECADE

- **Liberalization of Seed Sector**: Many governments liberalized their seed industry, primarily via policy & regulatory aspects.
- **Barrier of entry Lowered**: More private seed companies – both local, regional, and multinational – since 2007.
- **Increased Seed production**: Particularly for hybrid maize, small grains & legumes.
- **Improved Access to Quality Seed**: Route to market infrastructure developed supported by Agro-dealer networks, extension, and community advisory.
- **New varieties with special traits released**: Some are now being grown by farmers.
- **Seed Regulation**: Cross-border Seed trade begins increasing.
- **Policy reforms implemented**: Variety release, inspection, PBR, EGS production, access to public varieties, seed company branding, and marketing.
WHAT IS A FUNCTIONAL SEED SYSTEM?

SeedSAT Results for Six Countries

- BVRM
- EGS
- QCSP
- FAP
- SMD
- QA
- PLR
- NPC

- Eth
- Nig
- Ken
- Uga
- Mala
- Gha
EMERGING RESULTS

Kenya

Breeding, Variety Release & Maintenance
National Planning & Coordination
Quality Assurance
Policy, Legal, Regulatory
Seed Markets and Distribution
Early Generation Seed
Quality Commercial Seed Production
Farmer Awareness and Participation

AGRI LINKS
EMERGING RESULTS

Ghana

- Breeding, Variety Release & Maintenance
- National Planning & Coordination
- Quality Assurance
- Policy, Legal, Regulatory
- Seed Markets and Distribution
- Early Generation Seed
- Quality Commercial Seed Production
- Farmer Awareness and Participation
OPPORTUNITIES

• Weak NARS (capacity & mandate)

• Government regulatory agencies; lack of capacity to adhere to international quality standards

• Lack of solid evidence and technical expertise by policymakers to know what is working, what is not, and why

• Shortage of EGS

• Sizable addressable market @ 50% untapped

• Seed purity:- Low-quality and/or counterfeit seeds frequently planted by farmers

• Regulatory and legal frameworks in-sufficiently & or not “fit for purpose”

• Farmer Adoption:- 70% of SHF still growing old improved varieties, adoption rate @ 30%

• Investments focus on a few seed system components while others are neglected

• Uncoordinated seed investments
INTERVENTIONS AGRA HAS MADE TO ADDRESS STICKING CHALLENGES

- **Seed analysis** to systematically identify gaps in the seed system using SeedSAT

- **Quality**: Digitization and introduction of scratch cards on seed packs

- **EGS Models**: Introduce various production models e.g. start standalone EGS production companies, production through partnerships between public institutions and seed companies

- **Policy reforms** to create a favorable environment for the private sector to invest in seed e.g. PBR in Nigeria, Ethiopia, Malawi

- **Liberalization of seed inspection**: Allow private seed inspection e.g. in Rwanda, Uganda, Nigeria, Malawi

- **Farmer awareness** to enhance adoption through VBA model
WHAT DOES IT TAKE TO BUILD A THRIVING SEED INDUSTRY?

• **Regulation:** Enabling policies and regulation

• **Farmer awareness:** The value of technologies to inclusive growth

• **Markets as a pull factor:** Choice to farmers & respond to demand.

• **Resilience:** Diversification into a range of crops to enable farmers to earn above living wage / remain resilient in times of disaster

• **Capacity:** Public, Private Partnerships that are accountable to some key measurables

• **Sector Competitiveness:** Functional Public / Private Extension systems can catalyse inclusive growth
THE ROLE OF CENTER OF EXCELLENCE FOR SEED SYSTEMS IN AFRICA (CESSA)

• **Sector Coordination:** Focus on all seed system elements

• **Evidence-based data:** Crowd in multiple data points to influence policy, decision making and investments

• **R&D:** Enhance collaboration & fast-track technology development & deployment

• **Business Development Services:** Customised BDS, timely interventions based on market opportunity & need.

• **Capacity building:** Design demand based Catalytic grants with Governments and other partners based
HOW DO WE MOVE FROM...
WHAT WOULD IT TAKE TO BE FOOD RESILIENT?
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AGRA

Dr. George Bigirwa
Gbigirwa@agra.org
Deputy Vice President
Program Innovation Delivery
AGRA
Scaling of Seed Innovation

The Seeds2B Approach
What we do

A brighter future for smallholder farming

AGRISERVICES
AGRI-INSURANCE SOLUTIONS
SEEDS2B

OUR PROGRAMS AROUND THE WORLD
IMPACT ON THE LIVES OF PRE-COMMERCIAL SMALLHOLDER FARMERS IN 20 COUNTRIES

RESEARCH & DEVELOPMENT

POLICY
Current smallholder farmer landscape

An estimated 33 Million smallholder farmers contributing up to 70% of food supply

65% of arable land is in Africa

“Sub-Saharan Africa has a quarter of the world’s arable land but only produces 10% of the world’s agricultural output” - McKinsey.

“Africa’s annual food import bill of $35 billion, estimated to rise to $110 billion by 2025, weakens African economies, decimates its agriculture and exports jobs from the continent” - AfDB.

The challenges

Lack access to information and knowledge
Lack access to financial services and insurance
Lack access to mechanization
Lack access to quality inputs
Lack access to markets
Lack access to infrastructure

Sources:
- FAO. Supporting Smallholder Farmers in Africa
- Agriculture: Abundant opportunities. McKinsey Quarterly. 2010
Seeds2B engagement within the PLC framework to deliver new and improved seed varieties

Stage 0: Problem Definition
Stage 1: Solution Design
Stage 5-8: Solution Delivery

Seeds2B AFRICA

Bridging the gap between R&D and Commercialization and covers all steps in launching new varieties

Research & Development: IC, NARS, Private genetic providers
Commercialization: Seed-Cos, NGOs, FPOs Investors
Addressable bottlenecks constraining farmers’ access to quality seed of improved varieties

- **Product x market fit**: Public sector develops and releases large numbers of varieties. In some instances, their value propositions are insufficiently verified or communicated to seed companies and farmers.

- **Germplasm access**: Seed companies encounter slow, cumbersome, contradictory and sometimes non-existent licensing approaches from CGIAR and NBPs.

- **EGS supply**: Reliable sources of genetically pure, early generation seed (EGS).

- **Business risk**: Risks to seed companies associated with variable seed demand, seed production failures, and regulatory issues.

- **Capital access**: Limited access to capital for small and medium-sized enterprise (SME) seed companies.

- **Product pipeline insights**: Seed companies lack simple information about pre-commercial varieties available from CGIAR centers and NARIs, and how to access them.

- **Self and clonally propagated crops**: Low investment in seed marketing and production of self and clonally propagated crops.

- **Seed regulations**: Seed regulations are overly complicated and not fit for purpose.

- **Farmer awareness**: Farmers unaware about the characteristics of new varieties and their benefits.

- **Regulatory capacity**: Farmers’ lack of trust in seed quality from the formal sector.

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<td>Late development</td>
<td>Testing &amp; Registration</td>
<td>Introduction</td>
<td>Growth</td>
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Supporting stakeholders’ capacity to resolve bottlenecks through focused interventions
Delivering seed innovation at SCALE requires...

- Public sector capacity building to address gaps
- Go-to-market approaches for new varieties to be linked to needs downstream
- Building business skills to address unmet demand
- Linkages between breeders and SME seed companies
- Facilitating technology transfer to address unmet demand
- Capital and technical assistance for seed companies to invest in new varieties
- Policy support at national and regional levels
- Seed company support in seed production
- Policy support at national and regional levels
- Syngenta Foundation for Sustainable Agriculture
- Seeds2B AFRICA
- AGRILINKS
Some recent successes

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<tr>
<td>🌿</td>
<td>5,264 MT of seeds sold</td>
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<td>~$15M in seeds sales</td>
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<tr>
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<td>~200,000 Ha under improved varieties</td>
<td>🧥</td>
<td>~350,000 Farmers planting improved varieties</td>
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<tr>
<td>🏢</td>
<td>517 public &amp; private sector accessing improved varieties</td>
<td>⌧</td>
<td>83 active variety licensing deals</td>
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<tr>
<td>🌾</td>
<td>49 varieties officially registered</td>
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<td>~1,500 varieties tested and commercialized</td>
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<td>&gt;1,500 trial sites for adaptation, marketing, and agronomy trialing</td>
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<td>&gt;45,000 seed value-chain actors reached during field days and B2B events</td>
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Developing a best practice toolkit for variety commercialization
A sneak peak at the toolkit
Parting Thoughts

• Commercial seed delivery to smallholders remains a challenge with slow varietal turnover
• Addressing bottlenecks through a PLC lens will both diversify the range of public-bred crop varieties available to smallholder farmers and increase varietal turnover through commercial channels
• Call to action to build PPPs that deliver farmer prosperity
Thank You

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