

## **CASE STUDY ABSTRACTS – SESSION 2**

### **Africa's Private Sector-Led Seed Revolution**

***J.D. DeVries (Vice President, Program Development), AGRA***

Investments by The Rockefeller Foundation and others in agro-ecology-based crop breeding and private sector seed supply in the early 2000s, revealed that Africa's farmers were highly interested in higher-yielding seed but lacked dependable access to seed of improved varieties adapted to local growing conditions. Rockefeller's focus on African crop breeding, establishing private, independent seed companies, and village-based agro-dealers received a major boost when the Gates Foundation joined up with Rockefeller in 2006 to establish the Alliance for a Green Revolution in Africa (AGRA). AGRA's first major program was the Program for Africa's Seed Systems (PASS), which targeted the investment of \$150 million in crop breeding, over 100 private seed companies, and thousands of agro-dealers. Private seed supply is boosted by the introduction of hybrid maize seed plus fertilizer among smallholder farmers. Profits earned from the sale of hybrid maize seed allow companies to expand into the production and sale of seed other crops. In 2016, annual seed production by 100 private, African seed companies reached 130,000 MT. New private entrants continue to be registered each year even as large, regional and multi-national seed companies have expanded their operations across the continent. Average crop yields have increased in most countries, reversing decades of stagnation in the agricultural sector. Large seed subsidies, which fail to discriminate between high-quality, high-yielding seed and sub-standard seed, pose a threat to the health of seed sectors in many African countries. Secondly, many additional African countries with high population growth and growing food insecurity remain outside the "African Seed Revolution". Extending private sector-led supply of improved seed into these countries represents a major opportunity for improving food security and economic growth in Africa.

### **Incentivizing Affordable On-Farm Storage for Smallholder Farmers**

***Parasto Hamed (AgResults Field Coordinator), Deloitte Consulting***

The AgResults Kenya On-Farm Storage Challenge Project attempts to address the challenge of reducing post-harvest grain losses by incentivizing private sector actors to develop, market, and promote new or redesigned on-farm storage devices to smallholder farmers who cultivate five hectares or less. Under the pay-for-results (P4R) model, monetary awards are given to participants that achieve predetermined result thresholds. The distribution of awards is based upon the cumulative storage capacity sold by the private sector companies to smallholder farmers. The P4R mechanism is technology, marketing, and distribution agnostic encouraging participating companies to consider cost and storage effectiveness as well as the economic benefits to smallholder farmers. It is structured to test which private sector initiatives are more successful while determining smallholder farmer (SHF) demand and adoption. Lessons learned from the Challenge Project will inform future project design and contribute to scaling initiatives by the participating donors. The successful participants were those that established distribution networks reaching to the farmer level. These networks were different in their approach but in all cases provided SHF with easy access to purchase the products in outlying areas, even in some cases where these networks both sold and distributed within a walkable distance of the beneficiaries. The Challenge Project proved that SHFs had the financial capacity to purchase devices as well as the food security benefits derived from the use of these devices. Key partnerships were with agro-dealers as well as county government agents.

### **Scaling up of Agricultural Machinery in Bangladesh**

***Timothy Prewitt, CEO, and Conor Riggs, International Development Enterprises (iDE)***

The innovations currently being scaled up are three agricultural machines that are relatively new to Bangladesh. These are: (1) axial flow pumps (AFPs) which are used for irrigation from surface water sources and operated by separate diesel engines; (2) power tiller operated seeders (PT OS) which provide tilling, seeding and, in principle, fertilizing services; and (3) self-propelled reapers (SPRs) which cut field crops like rice, wheat, jute and possibly other crops like jute. In all three cases, the introduction of new machinery was combined with a business model of using Local Service Providers (LSPs) to provide services to small farmers on the assumption that it was neither economic nor affordable for small farmers to buy their own machines. More specifics on the Bangladesh enabling environment can be found in the case study.

### **USAID's Tool for Assessing Scalability: Lessons from Development and Applications**

***Richard Kohl, Lead Consultant and VP for Scaling Strategy, Strategy and Scale LLC***  
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The Agricultural Scalability Assessment Tool (ASAT) is designed to provide a qualitative appraisal of an innovation's scalability. While innovations do have intrinsic features that may make them more or less scalable in general, most of the factors affecting scaling potential can only be assessed relative to a specific socio-economic context and the characteristics of target adopters. The ASAT provides information on the strengths and weaknesses of the innovation relative to scalability, the most promising scaling up pathways (i.e., commercial, public, or public-private partnerships), and information on the extent to which target contexts -- locations and populations -- and their market and public-sector capacity currently facilitate scaling. The ASAT is not meant to be **the** decision-making toolkit. Instead, the toolkit is intended to identify constraints to and opportunities for scaling. These will serve to inform decisions about whether, and where, to invest in the scaling up of specific innovations, or for further investment in research and development. The ASAT can also inform design efforts to improve the scalability of an innovation, improve and strengthen market and public-sector systems to facilitate scaling, or both. The ASAT's greatest value is not the scoring per se, but in the assessments behind the scoring and the conversations provoked in making and justifying an assessment. It is strongly recommended that the ASAT be applied by a team comprised of at least three people: a researcher with knowledge of the relevant sector, a markets expert, and someone with considerable knowledge of the country(ies) or region(s) targeted for scaling. The ASAT consists of two components, or tools: an Agriculture Scaling Decision Tree (ASDT) and an Agricultural Scalability Assessment Matrix (ASAM). A dashboard also summarizes the results of the tools and provides recommendations based on that analysis. The ASDT is used to help select the appropriate scaling up pathway for an intervention (i.e., private, public, or donor driven). It should be applied first, since scoring via the ASAM is contingent on the choice of pathway.