Agricultural technology, especially higher yielding and adaptable crop varieties have the potential to not only improve food security but also accelerate and transform African agriculture and economies. However, the slow adoption of new technologies, from improved seeds through to mechanization, has delayed realization of the benefits of these technologies by smallholders who make up 80 percent of Sub-Saharan Africa’s farms.

This deficiency is in part due to an under-developed private sector and the failure of market systems to bring new technologies swiftly to the end users. Challenges to both the supply and demand sides of the agricultural input value chain and lack of access to capital or to credit for smallholders that would allow them to invest in more advanced technologies remain. In addition, access to output markets, within countries and across borders, is also constrained by several factors, including infrastructure, policy and a lack of financing.

Improving and streamlining the market systems in the region could produce substantial benefits to the agriculture sector by reducing the cost of doing business for all players in the agricultural value chain, including farmers, seed companies, agro-dealers and consumers. Making markets work for African agriculture, and helping farmers to access new technologies and inputs could spur a transformation of the wider economy. According to World Bank estimates, the African agriculture sector could more than triple in size by 2030, from US$300 billion today to US$1 trillion, driving strides forward in poverty reduction and food security.
Our contribution

AATF believes that building a more efficient, sustainable and inclusive agricultural system in Africa will require action from both the public and private sectors. The private sector is particularly well-placed to commercialise new agricultural innovations and ensure that these new technologies reach farmers. We work across the value chain to ensure that the market systems function efficiently and effectively so that agricultural products make it to where they are needed most.

We build commercial considerations into our projects, from product discovery to product access and use by farmers, and work to build a stronger ecosystem of capable retail partners who can ensure that technological innovations are widely distributed to all farmers.

We work with partners throughout the product development lifecycle, identifying products in the research and development pipeline and helping to shepherd them towards a commercial release, including product allocation, licensing, seed production, promotion and marketing.

We foster collaborations with public and private actors across the value chain, including research institutes, universities, national and local governments, technology owners, farmers, agro-dealers and financial institutions. This helps us to ensure that the technologies are developed in line with current market needs.

We help build the capabilities of private sector companies including SMEs to enhance their capacity, speed and effectiveness to deliver agricultural technologies to smallholder farmers. This includes capacity building in efficient production systems, quality control, marketing, and technical knowledge, as well as general business development. We also explore alternative business models for licensing, production, and distribution to ensure quicker and faster mass deployment of new technologies.

Current projects and special initiatives

Providing high quality, certified seed

Independent seed companies in Africa often lack access to high quality foundation seed, which means that they are often unable to consistently supply farmers with newer, higher yielding or more resilient varieties of seed. In maize, for example, hybrid varieties that have been on the market for years have still not adequately penetrated African markets, with only 30 percent of farmers using these varieties. Other new varieties stay for long periods on the shelves of research institutes due to this challenge of foundation seed supply.

To address this, AATF established and incubated the Qualibasic Seed Company (QBS) in 2017, which supports these enterprises with foundation seed, reducing their production cost and their business risks.

The consistent supply of high-quality foundation seed significantly improves the supply of certified seed to meet the market demand of new improved varieties. Gradually this will expand the markets for improved seed among smallholder farmers in Africa.

Supporting seed companies

Smallholder farmers in Sub-Saharan Africa often struggle to access cutting-edge seed varieties that could improve their productivity and reduce their vulnerability to climate change. This is partly because seed companies in the region are hampered by market inefficiencies and are themselves unable to access new varieties and technologies. AATF’s Seeds to Business Project (Seeds2B) aims to reduce the risks for seed companies and help them to expand their portfolios and enter new markets. The Seeds2B initiative applies a systematic market-led methodology to transfer seed technologies from research programmes to seed enterprises for rapid and improved commercialization. This is achieved through a process of technology scouting, analysis and product registration. The initiative targets several crops, including soybean, groundnut, sorghum, pearl millet and tomato.

Cassava mechanisation and agro-processing project

Cassava is an economically important crop in Sub-Saharan Africa, but farmers in the region on average achieve a yield of just 7-9 tonnes per hectare, around a third of that produced by their counterparts in Asia and Latin America.

The cassava mechanisation and agro-processing project (CAMAP) aims to increase the operational efficiency and improve market linkages for smallholder farmers in Nigeria, Uganda and Zambia. It also looks at improving distributor networks for machinery. Through the project, more than 18,500 hectares of land has been put under mechanisation and yields of up to 25 tonnes per hectare achieved with farmers recording increase in return on investment by over 60%.

The Technologies for African Agricultural Transformation (TAAT) Maize Compact

Scale out of high-impact, proven agricultural technologies, creating financial and market linkages and post-harvest investment is essential for transformation of Agriculture in Africa. Through support of the African Development Bank (AfDB), AATF is leading the TAAT Maize Compact that seeks to increase uptake and use of elite high-yielding climate-smart maize hybrids and accompanying agro-nomic packages by smallholder farmers in SSA: increase profit margins in the maize value chain through improved market linkages, integrating digital techniques for a robust maize value chain, and increase the number of women and youth entrepreneurs in the maize production and entrepreneurship.

This work is currently ongoing in 13 African countries. To date, the Project has reached 300,000 farm households in Southern Africa, supported production of and engaged 30 private sector seed companies.