



Africa Expansion Concept Note

Goal: Develop and scale the use of biofortified maize seeds with partners in order to improve nutritional deficiencies of national populations in Sub-Saharan Africa, while improving the incomes and climate resilience of Africa's poorest farmers.

Background:

- New Seed's approach to scale high-yielding, climate-resilient, biofortified seeds is working in Central America.
- New Seed has shown it can convert high-yielding, climate-resilient seeds to be biofortified, subsidize seed companies to sell them at affordable prices, and get governments to pay the subsidies.
- This approach is reaching 60,000 farmers in 2025 in Guatemala and El Salvador, improving the nutrition of 2M people, and has 70% of its direct costs paid for by the government. The nutritional impact of biofortified maize is well attested by several RCTs, including several led by New Seed.
- New Seed is seeking new partnerships to expand this work to Sub-Saharan Africa.

Sub-Saharan Africa has similar barriers to Central America for biofortified seeds:

- 1) In both regions, research centers and companies have developed new maize seeds that can significantly improve climate resilience and yields for farmers, but farmers are often too poor to pay market price.
- 2) In both regions, there isn't enough demand for nutritious maize to lead to the development and scaling of biofortified maize seeds. Outside of New Seed's efforts in Guatemala, biofortified maize seed represents less than 5% of the commercial seed market in all countries in both regions.

There are three big differences:

- 1) **Africa is big:** It has more agroecological regions. While one seed will work well for 90% of Central America's farmers, ~10 well-developed seeds are needed to cover the majority of Sub-Saharan Africa's farmers. The potential impact is also significantly higher: 40M smallholder maize farmers in this region feed over 300M individuals.
- 2) **Some farmers are too poor for the Central America strategy alone:** In Central America, nearly all farmers use a minimum amount of agricultural inputs. With moderate fertilization, improved seeds significantly increase yields. For these farmers, simply subsidizing seed price leads to farmer adoption of improved seeds. In contrast, in Sub-Saharan Africa, input usage is limited for a significant portion of farmers, meaning seeds must be packaged with other inputs to be attractive.
- 3) **Africa has good partners that make a different strategy possible:** NGOs and companies like One Acre Fund, Farmerline, WARC, Raising the Village, and MyAgro are all major potential collaborators in Africa that enable a different path to scale. These organizations all work to make better agricultural inputs, including new hybrid seed and fertilizer, more accessible to

farmers. These organizations often face challenges in sourcing enough high-quality, improved hybrid seeds. These organizations also have moderate to high incentives to capitalize on the health benefits that can come from promoting biofortified maize for their farmers and for consumers.

New Seed Africa Strategy: New Seed will

- 1) Convert the leading seeds used by partners as well as new seeds in development for target countries to be biofortified, through both an already proven breeding approach and a new, more efficient gene editing approach. This new gene editing approach will allow us to develop biofortified seeds in less than a year and at less than \$20,000, enabling the development of seeds for the rest of the region.
- 2) Work with partners who already provide seeds and fertilizer to farmers to prioritize biofortified seeds. This will involve assisting local seed companies to produce and sell these seeds to partners such as One Acre Fund, or in less developed markets, assist impact organizations which already sell hybrid maize seed to begin producing their own biofortified maize seed for sales.

Confirmed partners: One Acre Fund, CIMMYT

Partners in discussion: Raising the Village, FarmerLine, WARC

Countries: Rwanda, Kenya, Malawi, Uganda, Ghana, Nigeria

Initial pilot—Rwanda with One Acre Fund: 50,000 farmers by 2030; 300,000 by 2032.

New Seed and One Acre Fund have already launched a collaboration in Rwanda which will have biofortified seeds to farmers by 2027. The Rwandan government tasked OAF with leading development of the local maize seed sector by developing and promoting new, high-yielding hybrid seeds. While they are interested in promoting biofortified seeds, which could provide millions of consumers with nutritional benefits at no additional cost, there are currently no high-yielding, locally adapted biofortified varieties available. One Acre Fund has sent its leading seeds to New Seed for biofortification in Guatemala. These seeds (lines and hybrids) will be returned to One Acre Fund in 2027, where they will be tested, registered for sale, and be reproduced in tandem, allowing OAF to reach 10,000 farmers in 2029 and 50,000 in 2030.

Expansion—Regional project with partners: 40,000 farmers by 2031; 200,000 by 2032.

CIMMYT, in collaboration with the Gates Foundation and private companies, has developed new conventional maize seeds with higher yields, climate resilience, and pest resistance than nearly all seeds currently in the market in Sub-Saharan Africa. New Seed will convert these seeds to be biofortified. In Malawi and Kenya, countries with mature seed markets, New Seed will support local seed companies to test, produce, and sell these seeds to One Acre Fund, who will promote them to their farmers. In countries with less developed seed markets, (such as Uganda, Ghana, and Nigeria), New Seed will collaborate with impact organizations already serving farmers with seeds and inputs and support their entry into seed production. These collaborations will test the non-biofortified versions of these seeds with partners while seed development is taking place, and then support these organizations to register, produce, and begin sales of the biofortified versions in their respective markets.

	2026	2027	2028	2029	2030	2031	2032
Administration							
Hire regional director and two technical leads							
Rwanda Collaboration with One Acre Fund							
1. Converted hybrids and parental seeds sent to OAF							
2. OAF tests hybrids, registers hybrids, and reproduces seeds							
3. Phase 1: One Acre Fund pilots with 1,500 farmers							
4. Phase 2: Initial sales to 10,000 farmers							
5. Phase 3: Full sales begin: 50,000 farmers+							
Regional Expansion							
1. Identify leading seeds, begin conversion with/without gene editing							
2. Negotiate agreements with seed companies and partners							
3. Partners test conventional versions of the seeds							
4. Partners import, test, register, and begin reproducing biofortified hybrids							
5. Pilot promotion							
6. Pilot sales (10,000 farmers per country X 4 countries)							
7. Full sales (50,000 farmers per country X 4 countries)							
	2026	2027	2028	2029	2030	2031	2032
Farmers			1,500	10,000	56,000	190,000	500,000
Consumers			30,000	200,000	1.1M	3.8M	10M
Budget (\$1,000s)	1,594	1,630	1,670	1,271	1,560	1,782	1,776

New Seed — Sub-Saharan Africa Expansion Budget, 2025-2032

Annual year	2025	2026	2027	2028	2029	2030	2031	2032
Conventional seed development	280,000	280,000	280,000	280,000				
Gene editing	500,000	500,000	500,000	500,000				
Core team	240,000	252,000	264,600	277,830	291,722	306,308	321,623	337,704
Technical leads	220,000	242,000	266,200	292,820	480,000	528,000	580,800	638,880
M&E					180,000	320,000	320,000	
Seed trials		320,000	320,000	320,000	320,000			
Seed company support						406,000	560,000	800,000
Total:	\$1,240,000	\$1,594,000	\$1,630,800	\$1,670,650	\$1,271,722	\$1,560,308	\$1,782,423	\$1,776,584
Overall TOTAL							\$12,526,486	