



Feed the Future Country Fact Sheet

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Prize Competition Inspires Development of Affordable Technologies for Smallholder Farmers



AgResults

Veronikah Kasina shows off last year's maize crop, which is still viable thanks to AgResults' Kenya On-Farm Storage Prize Competition. The competition offers farmers new, affordable storage solutions to protect against pests.

On a sunny day in March, Kenyan smallholder farmer Veronikah Kasina showed off her maize harvest with pride. The crop's bright, pastel yellow color was promising, indicating healthy maize ready for purchase.

In prior years, Kasina hadn't reaped such success. Insects and other animals had always destroyed a large portion of her crop while it was in storage. But things changed for the better when she was able to purchase pest-resistant plastic storage bags at an affordable price. By using them, Kasina can now protect her stored grain from pest invasion throughout the year and minimize post-harvest loss.

Post-harvest grain losses in the developing world lead to lower incomes and food insecurity among smallholder farmers. This problem is particularly acute in Sub-Saharan Africa, where post-harvest losses are estimated at \$1.6 billion per year, or about 13.5 percent of the total value of grain production. Moreover, insufficient on-farm storage often forces farmers to sell their crops right after harvest, causing a surge in supply that lowers prices for their produce.

Private sector solutions to post-harvest losses exist, and smallholder farmers like Kasina provide a viable market for storage devices at a lower price point. But companies didn't begin to see them as such until the launch of [AgResults' Kenya On-Farm Storage Prize Competition](#).

The prize competition was designed to provide modest economic incentives to companies that design, develop, market and sell new (or redesigned) on-farm storage devices for smallholder farmers.

Companies that commercially sell the greatest amount of storage capacity for farmers in the aggregate receive the largest

proportion of the prize. These terms encourage companies to compete, innovate and create a vibrant on-farm storage market where none has existed before.

This competition is one of six that Feed the Future is supporting through a \$118 million partnership with the governments of Australia, Canada and the United Kingdom, and the Bill & Melinda Gates Foundation. Prize competitions offer a new method for the public sector to engage the private sector and use funds effectively and efficiently for greater impact. These mechanisms define a specific challenge – such as post-harvest losses and substandard quality legume seeds, among others – for the private sector to solve. Additionally, the partnership determines the right set of private sector solvers to address the defined challenge and then the right prize structure to incentivize them. The prize is only awarded to the companies that solve the challenge and achieve desired thresholds.

AgResults has learned multiple lessons on the role of prize competitions in development. By designing, and sometimes redesigning, effective prize competitions, AgResults pilots show a new way for donors and the private sector to work together to improve food security, nutrition and health for smallholder farmers and their families.

For farmers in Kenya, this means that multiple on-farm storage companies have begun to compete for their business with a variety of options, allowing farmers to choose between plastic bags versus metal containers or large options versus small. In its first year, the Kenya prize competition has five companies working in the Rift Valley and the Eastern Province. They have sold 113,000 devices that increase farmers' storage capacity to 20,000 metric tons of maize.

On Kasina's farm in the Eastern Province, this means a higher income and less likelihood of going hungry. Because she's able to store her grain, she can wait until prices rise to sell her harvest. With a higher income, Kasina can spend more on healthcare and education or on further improving her farm's productivity.