

Format for Quarterly and Final Completion Reports for COMPETE Grants

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Introduction

One Acre Fund serves some of the poorest farmers in East Africa, clients with an average under-five child mortality rate of 14 percent and a median landholding of one acre. Most of our clients are women, supporting an average of five children per household. Most of our clients are also net food purchasers, spending up to 65 percent of their incomes purchasing food.

In this agreement, One Acre Fund trained over 50,000 smallholder farmers on post-harvest handling and storage. These farmers have benefited from reductions in their post-harvest losses – some by as much as 87 per cent – and over 10,000 farmers have sold a portion of their harvest at market.

This report summarises the activities One Acre Fund carried out in accordance with the grant agreement. Thereafter, data gathered by our monitoring and evaluation teams in Kenya and Rwanda highlight the way in which grant activities achieved the project objectives.

A comparison of actual accomplishments with the goals and objectives established for the period. Particular achievements and obstacles to the success of the project should be reported in specific terms.

Rwanda Post Harvest Storage

May and June 2011

One Acre Fund's Rwanda operation successfully trained 26,559 smallholder farmers in Nyamasheke, Rusizi, Karongi, and Rutsiro Districts on post-harvest storage and handling of

beans and maize. This was 1,559 more farmers than indicated in the grant proposal. The following activities were completed as per One Acre Fund's grant proposal:

- 160 field officers were trained by One Acre Fund field directors and field managers on how to deliver farmer trainings on post-harvest handling and storage
- 160 field officers trained 26,559 smallholder farmers in groups of 40-50 farmers, in the fields where they live and work
- 160 field officers reported the number of farmers trained in their weekly key performance indicators

January 2012

One Acre Fund's Rwanda operation successfully trained 26,614 smallholder farmers in all its districts on post-harvest storage and handling of beans and maize. This was 1,614 more farmers than indicated in the grant proposal. The following activities were completed as per One Acre Fund's grant proposal:

- 160 field officers were trained by One Acre Fund field directors and field managers on how to deliver farmer trainings on post-harvest handling and storage
- 160 field officers trained 26,614 smallholder farmers in groups of 40-50 farmers, in the fields where they live and work
- 160 field officers reported the number of farmers trained in their weekly key performance indicators

Kenya Post Harvest Storage

July and August 2011

One Acre Fund's Kenya operation successfully trained 28,075 smallholder farmers in all its districts on harvest and post-harvest storage and handling of maize. This was 3,075 more farmers than indicated in the grant proposal. The following activities were completed as per One Acre Fund's grant proposal:

- 240 field officers were trained by One Acre Fund field directors and field managers on how to deliver farmer trainings on post-harvest handling and storage
- 240 field officers trained 28,075 smallholder farmers in groups of 40-50 farmers, in the fields where they live and work
- 240 field officers reported the number of farmers trained in their weekly key performance indicators

September 2011

One Acre Fund's Kenya operation successfully procured and delivered 43,000 maize storage bags and 7.35 metric tonnes of actellic dust. This reflected the success of the training sessions given to farmers in July and August, since purchasing maize storage bags and actellic dust was offered once farmers had completed the training. The strong demand for storage bags and actellic

dust showed that farmers valued the training they received, and believed in the importance of using these tools to store effectively. The bags and dust were bundled together and sold to farmers at KSh 300 each, with each additional bundle costing KSh 280. One bundle consisted of two 100g packets of actellic dust and four 90kg storage bags.

Kenya Market Access

February and March 2012

One Acre Fund's Kenya operation trained 15,359 smallholder farmers on maize sales and market access. 90 field staff received training on best sales practices and a weekly database of local maize buyers that included if they were buying and at what price. Field staff used these prices to advise farmers on when to sell and direct farmers towards buyers who would give them the best price. The trainings for farmers emphasised three best practices:

- Store quality maize longer
- Know, compare and share maize prices
- Bargain, transport and sell collectively

Rwanda Market Access

June and July 2012

One Acre Fund's Rwanda operation ran a trial to facilitate farmers looking to sell maize and beans. To address the problem of poor organisation of maize sellers and buyers, One Acre Fund created marketplaces where farmers came to a designated location with the surpluses they wished to sell and met with traders who paid the going market rate in cash at the time of sale. The trial ran for five weeks and was available to 4,656 farmers in Karongi, Nyamasheke, and Bugarama districts.

An evaluation or analysis of the degree to which the grant activities are achieving the project objectives. Reasons why established goals were not met if appropriate.

Rwanda Post-Harvest Storage

One Acre Fund's farmers in Rwanda showed strong adoption of the trainings they received on post-harvest storage of maize and beans, demonstrating the effectiveness of the trainings and the popularity of the intervention. Improvements in the percentage of maize harvests being stored for up to two months after harvest grew by an average of seven per cent:

Maize Stored			
	Harvest	Store	
Jan-12	189.01 (kg)	125.88 (kg)	67%
Jun-12	93.33 (kg)	69.17 (kg)	74%

An increase in seven per cent for beans being stored up to two months after harvest was also

observed:

Beans Stored			
	Harvest	Store	
Jan-12	100.52 (kg)	79.15 (kg)	79%
Jun-12	110.97 (kg)	95.88 (kg)	86%

The importance of training farmers on post-harvest storage can also be measured in terms of the amount of produce lost two months after harvest. One Acre Fund farmers experienced lower post-harvest losses as a proportion of their total harvest for maize than did a control group, although results from Kenya suggest these losses can be reduced further:

Maize Lost				
	Test		Control	
Jan-12	7.99 (kg)	4%	6.05 (kg)	5%
Jun-12	4.77 (kg)	5%	4.05 (kg)	6%

One Acre Fund beans farmers also saw lower post-harvest losses as a proportion of their total harvest than did a control group:

Beans Lost				
	Test		Control	
Jan-12	7.40 (kg)	7%	8.38 (kg)	9%
Jun-12	11.15 (kg)	10%	10.85 (kg)	13%

Kenya Post-Harvest Storage

Following an extensive survey of post-harvest and storage training, One Acre Fund's farmers in Kenya have been shown to be storing more maize for longer than comparator farmers who are not enrolled with One Acre Fund (control group). The following table shows kgs of maize stored after 2011 harvest:

	Harvest (kg)	Oct-11 (kg)	Nov-11 (kg)	Dec-11 (kg)	Jan-12 (kg)	Feb-12 (kg)	Mar-12 (kg)	Apr-12 (kg)	May-12 (kg)
OAF	1,056.6	628.5	468.0	342.3	240.7	166.5	95.8	59.7	21.1
Control	531.2	317.0	224.1	165.0	127.3	83.9	45.0	25.5	8.7

The data shows that One Acre Fund farmers start with almost twice as much maize in store after harvest and eight months later remain with twice as much maize than the control group.

The amount of maize lost to pests or mold is also considerably lower for One Acre Fund farmers, who averaged just 2.4% loss after eight months, compared with 36.9% for the control group. The following table shows kgs of maize lost after 2011 harvest:

	Oct-11 (kg)	Nov-11 (kg)	Dec-11 (kg)	Jan-12 (kg)	Feb-12 (kg)	Mar-12 (kg)	Apr-12 (kg)	May-12 (kg)	Total (kg)
OAF	23.24	1.15	0.00	0.18	0.02	0.00	0.40	0.16	25.15
Control	20.34	154.5	2.57	12.00	0.00	6.60	0.00	0.00	196.01

This difference in percentage of maize lost shows One Acre Fund has reduced post-harvest losses by an average of 87%.

Rwanda Market Access

Total Clients	Available Maize (kgs)	Maize Sold (kgs)	# Farmers Participated (Maize)	Available Beans (kgs)	Beans Sold (kgs)	# Farmers Participated (Beans)
4,656	16,699	14,091	267	12,878	10,779	122

One Acre Fund's market access trial in Rwanda revealed the challenges associated with promoting market linkages for smallholder maize and beans farmers. Due to lower than expected harvests in 2012 and because of a lack of value chain infrastructure, most One Acre Fund farmers in Rwanda are still producing largely for household consumption.

Kenya Market Access

68% of One Acre Fund farmers sold a portion of their maize at market. This is compared to 42% from the control group. Of the One Acre Fund farmers that sold at market, an average of 439.31 kgs of maize was sold, as compared to the control group's 150.27 kgs. This is reflected in the following table which shows average maize sold after 2011 harvest:

	Oct-11 (kg)	Nov-11 (kg)	Dec-11 (kg)	Jan-12 (kg)	Feb-12 (kg)	Mar-12 (kg)	Apr-12 (kg)	May-12 (kg)	Total (kg)
OAF	194.67	67.82	42.24	54.84	28.41	24.08	11.08	16.18	439.31
Control	59.18	20.25	22.83	9.90	11.06	13.47	8.18	5.42	150.27

One Acre Fund farmers were also able to trade a higher percentage of their 2011 harvest, as shown in the following table:

	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Total
OAF	18.4%	6.4%	4.0%	5.2%	2.7%	2.3%	1.0%	1.5%	41.6%
Control	11.1%	3.8%	4.3%	1.9%	2.1%	2.5%	1.5%	1.0%	28.3%

By having more maize to sell, and by being able to store for longer, One Acre Fund farmers are in a better position to mitigate the effects of price fluctuations. Despite higher input costs, One Acre Fund farmers were KSh 12,837 better off after 2011 harvest, an impact of 84%, as shown in the following table:

	Total Revenue (KSh)	Total Costs (KSh)	Profit (KSh)
<i>OAF</i>	35,668	7,615	28,053
<i>Control</i>	18,953	3,738	15,215

In Kenya, One Acre Fund was forced to rethink how best to connect farmers to traders. Average maize prices in Kenya at the start of 2012 were 77% higher than they were in January 2011, strengthening the position of farmers looking to sell their surplus, and changing the nature of One Acre Fund's facilitation of market linkages. Previously, One Acre Fund sought to sign farmers up for market days at specific locations, where traders could interact with farmers and transact on a given day. However, due to lower than expected demand from One Acre Fund clients for this service, an alternative approach was devised.

One Acre Fund focussed on the following three steps to promote market access:

- Store more for longer: The longer maize is stored the better the price later in the year.
- Know maize prices: Promote farmer awareness of prices at local markets and know what traders are paying.
- Aggregate for better prices: Aggregate bags with other farmers to get better prices.

Conclusion

Under this agreement One Acre Fund saw success in Kenya for its post-harvest storage training. Reduced maize losses enabled farmers to sell more of their produce. When coupled with training on market price awareness, and through market facilitation work carried out by field staff, One Acre Fund farmers achieved higher returns than farmers working independently of our program. A profit differential of 84 per cent was measured in Kenya, highlighting the importance of reduced post-harvest losses and appropriate market facilitation.

In Rwanda, improvements in post-harvest storage practices can be seen through increases in the percentage of harvests One Acre Fund farmers stored for up to two months, with storage for both maize and beans growing by 7 per cent this year. Such trainings are very new to Rwandese farmers and the concept has taken time to embed into everyday farming practices. Strong adoption of these trainings can nevertheless be seen in lower post-harvest losses for One Acre Fund farmers than a comparator group.

Market access for One Acre Fund farmers in Kenya is in a strong position. Overall 68 per cent of farmers sold a portion of their maize harvest at market. Volumes sold averaged nearly three times those sold by farmers not working with One Acre Fund.

In Rwanda, an average of just 6 per cent of One Acre Fund farmers sold a portion of their maize harvest at market, while less than 3 per cent of farmers sold a portion of their beans harvest. Various reasons could explain the relatively lower interest in selling at market for One Acre Fund farmers in Rwanda. First, average prices farmers received for maize was RwF/kg 249.5 compared to national average maize prices of RwF/kg 353.75; for beans, farmers were selling at RwF/kg 291.3 compared to a national average of RwF/kg 392. Second, One Acre Fund's market

access work in Rwanda followed a season of generally lower harvests than had been expected, and overall availability of surpluses for sale was less than would have the case in a good season. Third, attempts to promote market access at a given time may have contradicted with messages encouraging greater storage, and One Acre Fund in Rwanda continues to emphasise improved storage practices that will see more farmers store a greater percentage of their harvest for longer.

For these reasons, One Acre Fund plans to investigate additional market facilitation options in Rwanda. This will involve market facilitation trials that include small loans to maize mills to facilitate purchasing more maize, and also renting warehouse space to create a market for farmers to store and sell. In Kenya, One Acre Fund is running a campaign to promote maize storage commitments such as group storage pledges and "bag tags" which have increased local storage and thus harvest profitability.