

PHASE:	Research Station	50 – 500 farmers	1,000 – 20,000 farmers	Full Scale
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Introduction

Since the founding of our Kenya program in 2006, One Acre Fund has deployed a drop-distribution method to deliver seed, fertilizer, and other non-crop products to farmers who sign up to receive our loan package. The drop distribution method of input delivery involves fleets of trucks, hundreds of staff, and extensive logistical coordination to ensure that all clients receive the planting materials they've purchased on credit in time for planting. First, in the weeks and days leading up to input delivery, trucks deliver all inputs to a central warehouse. There, staff conduct inventory checks and quality assurance testing. Finally, all inputs are loaded onto trucks and distributed to pre-determined village sites, where clients come on a single day at a time scheduled in advance to pick up their orders.

Drop distribution has always been our principal distribution strategy in Kenya. However, One Acre Fund's program in Rwanda, which launched in 2007, initially delivered inputs using a rolling distribution method. With rolling distribution, inputs are stored in multiple rented warehouses and storage sites, then distributed to farmers on a group-by-group basis over the course of six weeks, with logistics staffers topping up deliveries as needed over the course of the six-week distribution period.

We chose rolling distribution because conditions in Rwanda did not seem conducive to a drop-distribution structure. First, the fertilizer market was unreliable; we had little control over when fertilizer would arrive in country, and needed a distribution method that allowed for flexibility to distribute fertilizer as it arrived in our warehouses. Second, Rwandan farmers often wait for information from local government officials before making decisions about what they will plant each season, and this information sometimes isn't available until right before planting time. Our six-week rolling distribution window made it easier to accommodate clients' last-minute changes to orders that had been placed months beforehand. Finally, road networks were in poor condition, and we had insufficient access to viable trucking operations that could fill our distribution requests in a compressed timetable. Rolling distribution allowed us to utilize a small number of trucks over the six-week distribution period.

In 2013, One Acre Fund Rwanda decided to trial the drop distribution method used by our Kenya program. In 2014, Rwanda scaled up drop distribution across the entire country operation.

Why It Failed

While rolling distribution allowed us to grow our program in Rwanda and was an effective distribution method for years, it became untenable for the following reasons:

- **Rolling distribution was overly complex and inefficient.** Distribution was done on a group-by-group basis; it would take six weeks for a field officer to complete deliveries to all of his or her clients. Compared to Kenya, Rwandan field officers spent much more time on input distribution, reducing time spent providing training and other services to farmers in the field. Additionally, the logistics team had to make multiple deliveries to each storage site,

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many of which were too small to hold all client orders for each site. At the end of the season, the team also had to return to the field and pick up surplus inventory.

- **Inventory management was a constant struggle.** Rolling distribution placed additional burdens on field officers who were already very busy, meaning inventory management sometimes suffered. For example, One Acre Fund field officers were responsible for finding and renting small warehouses (usually a storeroom or unused school room) for the distribution season, and for collecting pre-payment, distributing inputs to individual groups, and having clients sign off on orders. They also had to subdivide large bags of fertilizer on their own, with rudimentary equipment. These additional duties resulted in some discrepancies between what farmers ordered and what was delivered, or between what farmers received and what our audits showed they had ordered. With drop distribution, the logistics team assumed complete responsibility for inventory tracking, and field officers enjoyed a more manageable workload.
- **After a time, the enabling environment shifted, making drop distribution more logical.** Between 2009 and 2014, there was an increase in viable trucking companies in our area of operations in Rwanda. We also made significant progress toward standardization of key platforms, such as our client roster and our inventory management system, and made the strategic decision to assign logistics, delivery and auditing duties to separate teams. Around the same time, the government of Rwanda gave us permission to start importing our own fertilizer, thereby allowing us to guarantee and control our input supply.

What We Learned

The shift away from rolling distribution in Rwanda taught us the following lessons:

- **Even if it isn't broken, sometimes it's still worth fixing.** We had grown to over 86,650 clients in Rwanda using the rolling distribution model, and the thought of change was daunting given the scale of operations. However, we recognized we weren't providing the most efficient or highest-quality service possible, which in itself presented long-term risks to scaling and client retention. What worked for 86,650 clients would likely not work for 200,000 clients. In sum, we had to push ourselves toward greater efficiency, but test the new model rigorously to ensure it would work. This approach to innovating around efficiency has become integral to improving One Acre Fund's program across all countries of operation.
- **Improving operational efficiency allowed us to provide better customer service.** Centralized inventory management is more efficient. It also greatly reduces the number of errors and discrepancies in client orders, which helps ensure client satisfaction, repayment, and retention. With one-day input deliveries, teams of staff now ensure that the delivery process at individual sites operates smoothly, that clients get what they pay for, and that clients qualify for membership. Overall, there is more transparency and accountability throughout the process, and clients have stronger protections as a result.
- **Even efficient models can be improved upon.** In early 2013, we trialed a version of drop distribution using 50 kilogram (kg) bags of fertilizer. Clients were allowed to order the quantity of fertilizer they wanted, and our distribution units subdivided the larger bags according to individual orders. In late 2013, we iterated on the model: instead of only purchasing 50 kg bags of fertilizer, we purchased fertilizer bags in 5 kg, 25 kg, and 50 kg

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quantities. By doing this, we were able to eliminate the need for sub-dividing bags on-site to fulfill farmers' orders. This reduced time spent on the actual distribution of the fertilizer, which was the most time-consuming part of the distribution process.