



Feed the Future Country Fact Sheet

Online Version: <https://www.feedthefuture.gov/article/mobile-technology-transforming-smallholder-farmers%E2%8-%99-access-fertilizer>

Mobile Technology Transforming Smallholder Farmers' Access to Fertilizer

In Malawi, Feed the Future is working with the Ministry of Agriculture to improve efficiency and accountability in the fertilizer value chain through innovative new mobile technology that tracks data on deliveries, inventories and sales in real time.

Smallholder farmers in Malawi face many challenges in accessing high-quality inputs such as seed and fertilizer for their crops. The Ministry of Agriculture's Farm Input Subsidy Program provides these inputs to half of the country's three million farmers, using a paper voucher system to track thousands of shipments of seed and fertilizer as they are transported around the country. Fertilizer is particularly expensive, since it must first be imported to landlocked Malawi and then transported long distances to 1,300 rural markets, often using poor-quality roads that are impassable once the rains begin.

These difficult conditions combined with the high price of fertilizer unfortunately mean that the system for tracking shipments is highly susceptible to fraud, loss and theft. Truck drivers and others along the fertilizer value chain at times profit by diverting their cargo or diluting it with soil and sand, preventing smallholder farmers from receiving critical deliveries.

To address this problem, Feed the Future collaborated with Malawi's Ministry of Agriculture and other development partners to pilot an electronic tracking system that uses mobile phones to communicate via Short Message Service (SMS, or text messaging) between warehouses and the 1,300 market locations where fertilizer is delivered. All SMS communication is automatically documented in a centralized database, and when deliveries leave a warehouse the agriculture officers and market clerks in the field are notified of the estimated time of arrival, the truck registration number, and the number of fertilizer bags that will be delivered.

This system makes truck drivers aware that their deliveries are being tracked daily and saves farmers from traveling to markets to wait for fertilizer deliveries that may arrive several days late or not at all. It also allows the Farm Input Subsidy Program to re-position fertilizer if necessary and to notify the police if trucks do not arrive or do not deliver their full inventory.

The pilot has been so successful that the Government of Malawi is interested in expanding electronic fertilizer tracking nationwide for the next planting season. Feed the Future will also introduce a pilot e-voucher system, allowing farmers to receive their fertilizer and seed vouchers over mobile phones and redeem them with vendors, who will then be reimbursed automatically. The prospect of much speedier payments through the e-voucher system is expected to boost private sector participation in fertilizer markets.

More private sector participation means more market outlets for farmers to access the inputs they need to improve their crop yields—thus, this innovative mobile technology solution is a win for farmers, businesses and Malawi's agriculture sector.