



## CARE Market Engagement Innovation Brief

# CARE and MTZL Use Mobile Phones to Increase Access to Inputs in Rural Zambia

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*In 2009, CARE invested USD 100,000 in Mobile Transactions Zambia, Ltd to create an e-voucher system to improve asset transfer programs targeting rural smallholders. The system has dramatically reduced costs, increased efficiency and transparency and is fostering the expansion of a network of over 500 enterprises dedicated to providing Zambian farmers with affordable access to quality inputs.*

### **The Challenge: Asset Transfer Programs in Zambia are Inefficient, Costly and Distort Markets**

A severe lack of access to quality agricultural inputs hampers the ability of many small farmers in Zambia to reach their productive potential. Seeds, fertilizers, herbicides, pesticides and many basic farming implements are often unavailable or too expensive for rural smallholder farmers to purchase. Though the government and many development agencies have worked to alleviate this issue, challenges remain. One common tactic is to provide subsidies to smallholders in the form of direct asset transfers or indirect transfers through voucher systems. Unfortunately, both approaches have traditionally been plagued by inefficiencies, making them more costly and less effective than their promoters intend. The systems can also run counter to efforts to support the development of private sector networks focused on providing smallholders with access to inputs on a commercial basis.<sup>1</sup>

### **CARE's Response: The AgroDealer Project Invests in an E-Voucher System**

Through the ADAPT Project, CARE is increasing the access of 91,000 rural smallholder farmers to quality, affordable inputs by creating a network of 500 agrodealers. The initiative, which is supported by the Alliance for a Green Revolution in Africa (AGRA) relies on a combination of Agrodealer recruitment in remote areas, agrodealer business training, smallholder outreach, demonstration plots and linkages between agrodealers and Zambian and multi-national input suppliers. One vital aspect of the project's success is CARE's ability to foster the expansion of private sector solutions to increasing smallholder access to inputs. Recognizing the value of existing asset transfer programs in meeting the immediate needs of Zambia's most marginalized farmers as well as the potential threat such programs posed to CARE's ultimate objectives for ADAPT, the organization joined with the World Food Program, the Conservation Farming Unit and PROFIT in 2009 to consider alternative approaches to distributing subsidized inputs. The group was committed to identifying a more effective means of channelling limited resources to smallholder farmers while also fostering the development of longer-term private sector solutions.

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<sup>1</sup> The Ministry of Agriculture and Cooperatives (MACO) distributes the equivalent of 20 kg per capita of fertilizer at 60% subsidized cost annually to rural smallholder farmers. The system, however, has many challenges including financial costs, targeting and transparency. Efforts by development agencies have tried to address some of these issues through the use of voucher systems. These efforts, too, have faced challenges.

## From CARE to Mobile Transactions Zambia, Ltd.

Following extensive discussions, group eventually decided to develop an electronic voucher system through a partnership with MTZL. Unique from earlier voucher systems, which required participating agrodealers to travel long distances to redeem vouchers they honoured and were difficult for the offering agency to track, this new e-voucher system would enable agrodealers to be reimbursed immediately using a mobile technology platform. The system would also dramatically enhance offering agency targeting and tracking capabilities. For the first time, offering agencies would be able to see, in real time, who had redeemed a voucher, what they had used it for and where they had used it.

Realizing the potential in this idea, CARE took the lead and invested USD 100,000 in MTZL to pursue the project.

## The E-Voucher System

Like paper voucher systems, the e-voucher stimulates markets by increasing the spending power of the beneficiaries while reducing market distortions through improved targeting and the use of local private sector suppliers. Built on MTZL's existing technology and physical infrastructure, the new system combines paper vouchers, a unique coding system, mobile phones and linkages with agrodealer bank accounts to facilitate a more secure and efficient voucher system. Box 1 outlines the step-by-step e-voucher process.

## Results

In 2009, MTZL undertook two pilots of the system. One focused on direct asset transfers under a World Vision International program (WVI) supported by the World Food Program (WFP) and another aimed at expanding access to conservation farming inputs among rural smallholders in partnership with the Conservation Farming Unit (CFU). The WVI pilot provided 3000 beneficiaries with monthly scratch cards

### Box 1: Using the E-Voucher System

**Step 1:** Development agency designs their subsidy program and approaches MTZL about using the system.

**Step 2:** Development agency identifies target users / beneficiaries.

**Step 3:** MTZL and development agency co-design data management protocols and reports.

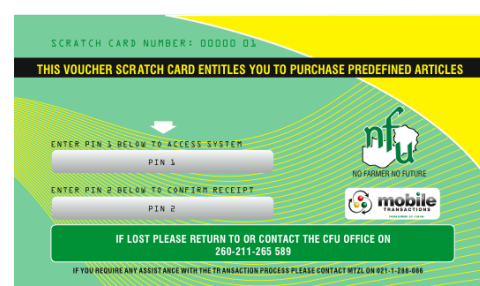
**Step 4:** Marketing of system to agrodealers. Agrodealers provide banking info to MTZL.

**Step 5:** Distribution of vouchers.

**Step 6:** Voucher redemption by farmers.

**Step 7:** Agrodealers text codes to MTZL database, which triggers automatic electronic payments to their bank accounts.

#### Example of an MTZL e-voucher. Front (top), Back (bottom).



worth K100,000 to cover select food rations. These were successfully redeemed at 14 participating agrodealers. The system was well received by all actors, reducing costs for WVI and the agrodealers and will be scaled up in 2010. Under the much larger CFU pilot, 13,000 vouchers valued at K100,000 were distributed to approximately 12,500 smallholder farmers in 13 provinces. The vouchers, which were redeemed at 27 different agrodealer outlets were intended to enhance the use of conservation farming practices by increasing access to rippers, riper parts, chaka hoes, herbicides, knap sprayers, spanners and innoculum – all typical conservation agriculture tools and inputs. The immediate benefits to CFU and farmers have been significant while the intervention is also leading to improved stock management by agrodealers of conservation farming implements.

### A Win-Win-Win-Win

The e-voucher system CARE has helped to create yields benefits all along the agro-input supply chain. A summary of system benefits includes:

- The system provides **smallholders** with better timed access to inputs as well as greater choice in suppliers.
- The system improves **voucher offering agency** targeting, tracking and transparency while reducing costs and opportunities for fraud.
- The system provides **MTZL** with a growing business opportunity and exposure to new markets.
- The system reduces transaction costs for **agrodealers**, creating incentives for them to participate and for new agrodealers to enter the market.
- The system advances the objectives of **CARE and ADAPT** by increasing smallholder access to inputs through mechanisms that are more market oriented and financially sustainable.

### The Road Ahead

Through a one-time investment, CARE has been able to dramatically transform the potential for higher-quality, more-efficient and better-targeted support to the most vulnerable Zambian smallholders. Viewed from a financial perspective, CARE's investment has already generated between USD254 and USD5400 in increased sales for the 27 participating agrodealers, which translates directly into an increase in smallholder inputs of the same value. The system is, therefore, an effective mechanism for ensuring CARE's investments and those of other development or government agencies are channelled directly to CARE's target groups while also limiting market distortions. Moving forward, the ADAPT Project and CARE will continue to seek innovative ways of fostering the growth of a sustainable agrodealer network that reaches all Zambian farmers, enhancing their ability to access the inputs they need to increase their productivity and their incomes.

**CARE in Zambia:** CARE is a leading humanitarian organization fighting global poverty. We place special focus on working alongside poor women because, equipped with the proper resources, women have the power to help whole families and entire communities escape poverty. CARE began operations in Zambia in 1992 in response to severe droughts facing the country. Our work today focuses on improving the productivity and profitability of agriculture for the poor and improving health care, particularly working to stop the spread of and respond to HIV/AIDS. Website: [www.care.org](http://www.care.org).

**Mobile Transactions Zambia, Ltd.** Mobile Transactions provide financial services and market information for the unbanked but income earning Zambians in a sustainable manner that promotes a competitive environment and an expanding range of services and allows banked institutions to transact and engage this market sector. MTZL provides the following services: Payment and transaction service; SMS Communications Solution; System development and integration. Website: [www.mtzl.net](http://www.mtzl.net).