

Note 14

Zimbabwe : Increasing smallholder farmers' access to improved seed

(2,019 words)

The views expressed in this note do not reflect the views of the Executive Directors of the World Bank or the governments they represent

Agriculture accounts for about 18% of Gross Domestic Product (GDP) and 70% of employment in Zimbabwe. In 2008, as a result of drought and a shortage of farm inputs, the country harvested less than 30% of cereal grain requirements. By 2009, more than 7 million people or 60% of the country's population required food aid due to high international grain prices and the inability of the government to find sufficient resources to meet demand.

The Zimbabwe Emergency Agricultural Input Project (ZEAIP) was the World Bank's response to specific agricultural aspects of the country's economic crisis. In particular, it prioritized, in alignment with the Government of Zimbabwe's Short Term Economic Recovery Program (STERP), the revitalization of the agricultural sector and improved food security. Implemented by GRM International Limited over the period 2009-11, it secured financing (US\$ 7 million) from the Food Price Crisis Response (FPCR) Core Trust Fund under the Global Food Crisis Response Program (GFCRP).

Designing from lessons learned

The project's design built on the humanitarian seed distribution experiences of the government, donors and NGOs over many years. The lessons factored in were as follows.

- Seed delivery and planting needs to be timely in order for farmers to benefit from the summer season rains;
- Seeds must be certified in line with Zimbabwe's agriculture regulatory protocol to ensure genetic and physical purity, and good germination;
- Seed distribution should be part of a coordinated approach amongst all stakeholders to reduce support overlaps;
- Monitoring seed companies is essential to ensure timely inputs; and

- The provision of complementary inputs such as fertilizer, top dressings, etc. is essential for increased seed productivity.

The project's objective was to increase access to improved seed among 300,000 smallholder farmers farming in targeted food-insecure communal lands in Zimbabwe. Outcome indicators related to the producers' receiving improved seeds and the area cultivated with improved seeds. The project had 2 components.

The first was to purchase and distribute 3,000 metric tonnes (mt) of improved maize seed to the 300,000 farmers mentioned earlier with each farmer receiving one 10 kg bag of improved maize seed in time for the 2009/10 summer planting season. The distribution would be done through (a) direct distribution of some 2,750 mt of improved maize seed to approximately 275,000 food-insecure smallholder farmers; and (b) a pilot program based on vouchers through which some 250 mt of hybrid maize seed would be distributed to 25,000 smallholder farmers through local rural retail outlets.

This component was revised in 2010 to include the purchase and distribution of an additional 450 mt of improved maize seed to benefit an additional 45,000 smallholder farmers using the voucher program only, on the basis of lessons learned in year 1.

The second component dealt with monitoring and evaluation and related to (a) project coordination and monitoring of seed supply companies and NGOs to ensure the timely tendering and delivery of seed to farmers; operation of the pilot seed voucher program to ensure the timely distribution of vouchers, stocking of seed in rural shops, voucher redemption and commission payment, and safeguards compliance; and (b) project evaluation through an independent entity to carry out an impact assessment as well as an independent audit.

Implementation

GRM International Limited, a private company registered in the United Kingdom and Wales, had been competitively selected to manage DfID's Protracted Relief Program (PRP) in Zimbabwe for several years. The decision to use GRM as the lead implementing agency capitalized on an established mechanism for managing donor-supported input programs on the ground. In addition, the company worked

closely with FAO's Emergency Coordination Unit based in Harare, and had established strong relationships with an extensive network of experienced NGOs throughout the country.

On the whole, implementation of ZEAIP went as planned. It covered 45 districts in year 1 (2009/10) and 14 districts (using the retail voucher program only) in year 2. Forty-nine rural retail shops participated in the pilot voucher program in year 1 and 139 in year 2.

Producers receiving improved seed

- Overall, 3,630 mt of improved seed was distributed in 10 kg packages to 365,593 households under both direct and retail voucher-based programs compared to the revised targets of 3,450 mt and 345,000 households respectively;
- On average, 90% of farm households were able to effectively plant the improved seed within the critical summer planting period, thus contributing to their own food security;
- The 2009/10 post-harvest impact assessment report estimated, based on its review sample, that the proportion of households that had produced sufficient grain to meet their household requirements increased from 30% in 2008/09 to 48% in 2009/10; and
- It was estimated that ZEAIP maize seed contributed 118 to 377 days of additional cereal supply at the household level from the 2010 harvest.

Area cultivated with improved seed

- Based on the 2009/10 post-harvest survey, ZEAIP seed contributed roughly 41% of total maize area planted in the targeted areas, resulting in 137,050 ha of area sown based on a 90% utilization rate;
- ZEAIP hybrid maize seed was found to have produced higher yields (1,747 kg/ha) compared to non-ZEAIP hybrid seed (1,252 kg/ha);
- For the 2020/11 season, ZEAIP contributed to roughly 56% of total area planted in targeted areas resulting in 26,083 ha of area sown; and

- The total maize area planted using ZEAIIP seed over the 2 years was estimated at 163,133 ha which exceeded the revised performance target of 155,250 ha by 8%.

Farmers receiving vouchers

The successful pilot voucher program resulted in its exclusive use in the second round.

- 86,193 farmers received seed under the program, Compared to the revised target of 70,000 farmers, this exceeded the overall target by 23%.

Monitoring and implementation

- At the field level, project monitoring was primarily the responsibility of the contracted NGOs, who had been tasked with ensuring the timely delivery of the seed and vouchers, where applicable to farmers;
- GRM also undertook field monitoring visits and provided quarterly progress reports to the World Bank, documenting implementation progress against the project's Key Performance Indicators (KPIs);
- ICRISAT was contracted by GRM to conduct an independent impact assessment for each agricultural season covered by the project;
- Surveys were carried out by ICRISAT in a number of rural provinces and districts, using structured sampling methods, to assess impact on household beneficiaries; and
- Utilization of the M&E results enabled the project to expand the voucher system after the first season.

Gender

Gender was an important focus of project design and hence targeted beneficiaries included female-headed households. The project established a female beneficiary target of 33%. Although the impact assessment did not explicitly look at targeting, including gender, in terms of lessons learned, survey results did confirm that on average, 33% of female-headed households were served by the project.

Challenges

Seed distribution/voucher printing delays: Delays in the supply of a small quantity of Open Pollinated Variety (OPV) seed during the first season of distribution led to associated delays in the delivery of seed to the targeted beneficiaries. In the second season, a second supplemental printing of vouchers related to a supplemental purchase of seed led to a late delivery of some vouchers to NGOs for distribution to farmers.

Procurement delays: Early procurement delays slowed down some aspects of the contracting process as both GRM and the local staff of Crown Agents were unfamiliar with the World Bank's procurement process.

Adverse climatic conditions: A dry spell – lasting more than 20 days – affected most of southern Zimbabwe during both years of project implementation with damaging effects on productivity and crop yield. As a result, some crops had to be written off.

Commission payment delays: Especially during the 2010/11 season, commission payments to a number of participating retail outlets (50%) were delayed. A contributing factor was that a number of local establishments did not have banking arrangements to facilitate the timely payment of their commissions.

Lessons learned

Using existing institutional structures, particularly in the private sector, reduces risk: Operational risks were considerably reduced by building on the experience and institutional arrangements on the ground. The project learned from the PRP, then identified and made use of GRM's skills. PRP and GRM already had developed strong links with many NGOs well-known to local communities.

Emergency operations can be designed to re-establish the private sector quickly and move away from expensive food aid: The needs of smallholder farmers were particularly acute as a result of high global food and fuel prices. During project design, various constituencies had argued for a simple humanitarian design based on the direct handout of inputs to individual farmers. The project team argued that the recent change (coalition) in government, and the adoption of hard currencies to replace the Zimbabwe dollar, opened up opportunities for market development, and the reduction of handout dependency. The success of the pilot voucher scheme

encouraged interest in testing a broader range of market-based delivery systems for agricultural and rural assistance - including open vouchers, electronic vouchers and retailer credit. The overall result was a broader commitment to a humanitarian plus development model.

Heavily subsidized or free bulk input supply programs can destroy private retail markets; vouchers are a useful tool to reduce this problem: To further develop input markets, the project asked each of the tender-winning seed companies to also supply seed to the selected agro-dealers for commercial sale on consignment. In both 2009/10 and 2010/11, this approach failed for 3 interrelated reasons. First, many farmers still expected to receive cheap or free seed directly from one of the government's distribution programs. Purchasing seed seemed unnecessary. Second, many farmers argued that, even when the season was favorable, their poverty justified free assistance. Finally, the seed companies had an incentive to hold and earmark seed for bulk sales to NGO and government programs, rather than risk the pursuit of smaller sales on rural retail markets. Essentially, the transition from relief to commercial seed markets takes time. The voucher system used by this project is a useful transition tool since the vouchers can be subsidized while still maintaining private sector infrastructure supply systems and incentives. With vouchers, the subsidy level can be adjusted over time. Thus, NGO or government bulk delivery input supply programs should be used only as a last resort in emergency situations since they can reduce incentives for or even destroy existing private delivery structures. A related lesson is that voucher systems can also gradually repair the damage if the bulk distribution of inputs is already in place.

The competitive procurement of seed from one supplier limits seed choices for the farmer and can dislocate supply markets: The project procured seed from the cheapest supplier with varieties known to be suitable for the targeted environments. The program thus undermined the farmers' capacity to choose the variety that they preferred. This constraint has been partially resolved by the testing of open-ended vouchers in more recent input distribution programs. Open-ended vouchers would better stimulate competitive input supply markets and should be used wherever possible. Distributors would thus be allowed to exchange vouchers for inputs that they have sourced themselves. A caveat is that the lack of cash or logistical issues may restrict distributors from sourcing inputs, and the

project would need to provide a stock of inputs to suppliers. In these situations, it may be useful to procure inputs from more than one supplier to offer farmers a choice; procuring from multiple sources would also avoid market dislocation caused by hiring one supplier one year and another the next.

Input market development takes time – multi-year emergency projects may be better: One project spillover pursued through the voucher pilot was also to rebuild linkages between seed suppliers and seed retailers. It became obvious that this could be effectively achieved with multiple years of support involving a common set of companies – sustainable markets need sustainable support.

This note has been sourced from Implementation Completion Report No, ICR00002062, March 30, 2012, World Bank, Washington DC. The Team Leader was Pauline McPherson : pmcpherson@worldbank.org. Queries to her or to Samuel Taffesse: staffesse@worldbank.org